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PARAMEDIC SERVICES REPORT

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PARAMEDIC SERVICES REPORT

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PARAMEDIC SERVICES REPORT

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H. E. BERGEN
CITY MANAGER

CITY of BAKERSFIELD

May 13, 1975

Honorable Mayor and City Council
City of Bakersfield
Bakersfield, California

Gentlemen:

The Paramedic Services Report represents considerable staff effort to obtain all the facts and information concerning this subject, which could have far-reaching effects to the City of Bakersfield. Although the findings and conclusions have been put at the front, I would urge you to read the report in its entirety in order to be fully aware of how these findings and conclusions were arrived at.

This matter has been referred to the Governmental Efficiency and Personnel Committee who have held numerous meetings and are in the process of evaluating the need for a paramedic program in the City of Bakersfield. With this staff report, the Governmental Efficiency and Personnel Committee can complete their report to the City Council.

Respectfully submitted,


H. E. Bergen
City Manager

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CHAPTER I

FINDINGS

The following are the major findings the report has revealed:

1. No statistics or medical evidence is available to determine the real need for a paramedic program in the City of Bakersfield. Furthermore, agencies already providing paramedic services have had considerable difficulty in attempting to identify a true decrease in the mortality rate due to the availability of this service.
2. No comprehensive countywide emergency medical care system (which would presumably determine the need for paramedics) is in existence at the present time. The County is currently attempting to obtain funds to assist in the establishment of this system.
3. At the present time, there is no comprehensive emergency communications network in the Bakersfield metropolitan area.
4. San Joaquin Hospital currently has a pilot emergency medical training program leading to paramedic certification. Nine city firemen and six ambulance company personnel received paramedic training at the hospital during the fall semester. Additional fire and ambulance personnel are enrolled during the current semester training program.

5. San Joaquin is the only hospital in the city at the present time that is a County-approved "base" hospital and has the radio-telemetry equipment to maintain voice contact with paramedic units in the field. Mercy Hospital will have such a facility in the near future.
6. One local ambulance company has already initiated a paramedic services program as part of its operations.
7. The County of Kern is not presently contemplating the establishment of a paramedic program in the unincorporated area.
8. Response time, geographical boundary limitations, who pays for paramedic services, and the adequacy of other emergency medical care services are critical factors that must be considered in establishing any paramedic service.
9. The first paramedic unit for the Fire Department could be established at little initial cost based on presently known factors, only if additional personnel are not hired. However, each succeeding unit would have a major impact on the City's financial resources.
10. In order for the Fire Department to provide a reasonable response time to all areas of the city, three paramedic units would be required.
11. Liability may become a major problem in providing paramedic services. However, it is difficult to assess the situation at the present time based on the constantly changing situation in the area of medical malpractice.

CHAPTER II

CONCLUSIONS

1. That a paramedic program by the Bakersfield Fire Department not be initiated at this time.
2. That the Fire Department discontinue using rescue unit No. 1 for resuscitator and inhalator calls in all districts, shifting that responsibility to the "first-in" engine company, and that the unit be reassigned as a special service unit that could be used as a backup to any emergency.
3. That all Fire Department personnel be trained to a level of EMT-I enabling them to provide a higher level of service on the "first-in" engine company response than can presently be provided by a single rescue unit.
4. That the City promote the private ambulance companies to encourage stability and effectiveness of their service and create a good climate for their operation.
5. That the City actively participate in the establishment of an overall countywide emergency medical care system.

CHAPTER III

INTRODUCTION

BACKGROUND

On December 23, 1974, the Fire Chief made a report to the City Council relative to the establishment of a paramedic program within the Bakersfield Fire Department. The matter was referred to the Council Governmental Efficiency and Personnel Committee for study. This report was prepared by the City Manager's staff as an aid in helping the City Council reach a decision.

PURPOSE OF REPORT

The purpose of this report is to determine whether or not there is sufficient need and justification for the establishment of a paramedic program in the City of Bakersfield and, if so, how such services should be provided.

METHODOLOGY

This report is the result of contacts made with various people within the City of Bakersfield, including ambulance operators, hospital administrators, the Kern County Medical Society, and others. Contacts were also made with cities which have had experience with paramedic programs. A complete listing of those persons contacted during the course of this study is included in Appendix F.

Determining the feasibility of a paramedic program is complicated because of moral, philosophical, and financial issues. For

example, does one consider feasibility in terms of lives saved and disabilities reduced; the quality and value of lives saved and disabilities reduced; the amount of resources that can be spent; or other programs which might yield greater benefits by using equal resources. If these issues can be resolved, others arise such as: Which organization would be best suited to deliver paramedic services? How many paramedic units are required? How should a program be administered?

Premises

Because of the complexity of these issues, it became apparent to the staff that a common point of departure was necessary to make progress toward its task. The following list of premises or "givens" were developed to clarify and guide the preparation of the report. These premises are as follows:

1. That the need for and benefits of a paramedic program be based on a thorough medical analysis if at all possible.
2. That need for and justification of a paramedic program must be viewed and evaluated in relation to the present and future overall Emergency Medical Services System (EMS) for Kern County.
3. That there may not be a clear-cut means of arriving at a cost/benefit justification.
4. That facts and information from the experience of others be made a part of this report.

5. That the paramedic concept be decided on a factual rather than an emotional basis.

Approach

After careful analysis, the staff decided the approach would consist of the following steps:

1. Review and briefly describe the present EMS System in Kern County.
2. Determine the goals, services, and benefits of a paramedic program and the operational considerations involved.
3. Review the literature and paramedic experience in other jurisdictions.
4. Conduct interviews with people directly involved in the provision of paramedic services.
5. Consider alternative means of providing paramedic services in the City of Bakersfield.
6. Estimate the cost of a paramedic program if it were provided by the City Fire Department.

DEFINITIONS

In California, a paramedic is an individual who is certified by the local County Health Officer to perform certain specified medical services. These services are described in the Wedworth-Townsend Act (see Appendix A). Basically, a paramedic is allowed to give more care than an ambulance attendant under similar

circumstances. A paramedic would be able to connect a patient to radio-telemetry equipment and receive instructions from a physician or a nurse at a hospital for initial stabilizing treatment. The treatment could include injecting various types of drugs, starting intravenous fluids, defibrillating, and the like. Paramedics do not necessarily have to be firemen, nurses, military corpsmen, or ambulance personnel, but could be certified from any of these groups. Minimum certification requirements are set forth in the Wedworth-Townsend Act and include 200 hours of didactic (classroom) training, 100 hours of clinical experience, and a field internship period of at least 200 hours. However, the Act authorizes waiver of these requirements when the criteria, established by the County Health Officer, for certification have been met.

A paramedic program is a coordinated system composed of personnel, communications, transportation, hospital facilities, professional services, supplies, and administration operating in concert to deliver service.

DESCRIPTION OF PARAMEDIC TRAINING

Within the context of provision of emergency medical services by other than a licensed physician or registered nurse, there are four "paramedic" classes. These are as follows:

EMT-I - This is the first level of training and held by most ambulance attendants and some public safety personnel. Ambulance drivers and attendants must meet state and county requirements in order to be licensed. Before licensing, they are required to pass a first aid test

and within forty-five days of employment, must pass a Cardio-Pulmonary Resuscitation (CPR) course; within one year, they must pass the EMT-I course requiring over 100 hours of instruction.

The bulk of the public safety personnel falls in the fire departments and law enforcement agencies. Fire department personnel are trained in CPR, Advanced First Aid, rescue and extrication techniques; some law enforcement personnel have limited EMT training.

EMT-II - This second level, the one to which certified paramedics belong, requires a minimum of 520 hours of training:

200 hours of classroom instruction

120 hours of clinical time

200 hours of field internship

Under the provisions of State Law, Bakersfield College and San Joaquin Hospital are presently conducting a pilot training program to give this level of training in Kern County. The program and course content have been approved by the County Health Officer. (Appendix B provides a brief outline of the approved course content.)

Once a paramedic is tested and his field performance reviewed, he is certified by the hospital for a period of two years. During those two years, he must obtain

a minimum forty hours per year of refresher training (either through County-sponsored courses or special course work at the hospital). He is also subject to periodic review by County-designated mobile intensive care unit nurses who may ride along on emergency runs and observe the paramedic's work. If at any time the paramedic is judged unqualified by County officials, and upon the recommendation of their own staff or staff of County-approved hospitals, he may be decertified. At the end of two years, the paramedic's work is reviewed and he may be recertified for another two-year period.

EMT-III - This level is currently not defined or being used.

EMT-IV - This level is reserved for a Physician's Assistant and has, in the past, been restricted to in-hospital assistance and has not been used as a field emergency position.

BASE HOSPITAL

Each paramedic unit established in Kern County must be associated with a County-approved "base" hospital. This hospital must obtain radio-telemetry equipment in order to maintain voice contact with paramedics during an emergency and to transmit the EKG of a patient if required. Cost for this type of equipment is approximately \$10,000. The hospital must also meet minimum criteria for emergency care facilities and sign a contract with the County guaranteeing to maintain compliance with the County criteria.

Additionally, the base hospital generally accepts the responsibility of providing any needed refresher training to paramedics associated with the hospital and to critique every paramedic emergency "run" in order to help paramedics improve the quality of their work.

CHAPTER IV

THE PRESENT EMERGENCY MEDICAL SERVICES SYSTEM IN KERN COUNTY

The following chapter is a brief description of emergency medical care systems, services, and facilities presently available in Bakersfield.

COUNTY EMERGENCY MEDICAL CARE COMMITTEE

The State Health and Safety Code (Section 17.50) provides for the establishment of County Emergency Medical Care Committees to advise the Board of Supervisors on matters of emergency medical care throughout the county. The Kern County Committee was established in December, 1968. Since that time, the Committee has been involved largely with efforts toward the planning and establishment of a comprehensive emergency medical care system. The County is presently attempting to obtain federal funds to study the feasibility of establishing and operating a countywide emergency medical services program.

EMERGENCY MEDICAL CARE DELIVERY SERVICES

In the City of Bakersfield, there are currently three entities involved in the delivery of emergency services: the hospitals, ambulance firms, and the Bakersfield Fire Department. A brief review of the services provided by these entities indicates the need for additional coordination and cooperation in this area.

Hospitals

Bakersfield is fortunate in having five hospitals in the community which have 24-hour daily emergency room and coronary care services available to the general public. All hospitals have both Intensive Care Units (ICU) and Communicable Care Units (CCU). Three hospitals have neurosurgery services; one has a hemodialysis unit; three have cardiac bypass capability; one has a burn center; and two have neonatal ICU's. A check list of hospital emergency services available within the county, including the City of Bakersfield, is shown in Appendix G.

In the event of an emergency, a patient can be brought to a hospital and receive prompt, high quality care. This role is essentially passive, in that the hospitals do not normally dispatch medical personnel and equipment to the scene of an illness or accident. This means that the hospital staff must rely on others to either transport the patient quickly enough and/or to provide interim emergency treatment until the patient can reach the hospital.

The fact that hospital personnel cannot now assist patients until they reach the emergency room places them under a handicap in their efforts to save lives. Evidence from the Cardiac Ambulance Pilot Project, supported by the Los Angeles County Heart Association, indicated that of 712 patients transported in the last two years, approximately 80 had serious or life-threatening heart conditions occur at the scene or enroute to the hospital.¹ The Los Angeles County Heart Association has further indicated that the pre-hospital mortality from coronary disease accounts for over 300,000 deaths in

the United States annually, with 125,000 of these being persons under the age of 65.²

Ambulance Firms

Ambulance firms are a major means of providing at-the-scene care and transporting emergency-condition patients to the hospital. The caricature of untrained ambulance attendants handling patients carelessly has changed dramatically during the past decade. Ambulance drivers and attendants now must meet state and county requirements in order to be licensed and, generally, are highly qualified and concerned for patient welfare.

Two ambulance companies operate within the City of Bakersfield corporate limits with a total of eight ambulances in their current inventory. The companies providing emergency services in Bakersfield have sent most of their attendants through a 170- to 200-hour classroom and in-hospital training course in emergency medical care. Those completing such a course are then certified as Emergency Medical Technician I (EMT-I), resulting in a skill level greater than the first aid knowledge of most public safety personnel (see Appendix I for EMT-I model course content). As indicated later in this chapter, the ambulance companies serving the city are considering the provision of paramedic services. Each ambulance carries oxygen, resuscitators, splints, stretchers, blankets, and many other articles required by State Law.

Bakersfield Fire Department

Prior to 1958, emergency calls other than fire, i.e., heart attacks, drownings, electrocutions, and poisonings, that required emergency

medical treatment or resuscitator or inhalator services were answered by squad pumpers for their respective area. The pumpers were furnished with oxygen tanks which, at that time, were the best equipment available.

In 1958, two rescue trucks were purchased by the department. The trucks were equipped with the latest resuscitator and inhalator equipment and responded to all calls, since not all engine companies were furnished with this type of equipment until 1965.

In 1972, one of the department's rescue trucks was involved in an accident while responding to a call. As a result of this accident, the department determined that one rescue truck was sufficient due to the hazards involved, manpower needed, and the fact that all squad pumpers had modern resuscitator and inhalator equipment.

The Fire Department presently responds to the vast majority of calls for emergency medical aid within the City of Bakersfield. A fire engine company and an ambulance respond to all resuscitator and inhalator type calls. Because of their diverse locations, the engine company frequently arrives at the scene before the ambulance. In addition, the fire rescue truck also responds in Districts 1, 2, 3, and 4. It would seem that the need for the City's rescue truck to respond to these types of calls, in addition to the engine company and the ambulance service, is questionable.

Fire personnel are trained in Advanced First Aid, but most are not trained to an EMT-I level. They perform a role as an extended arm of the hospital, providing emergency medical care at the scene with

the assistance of, or until the arrival of, an ambulance. The patient is then transported by ambulance to the hospital. There are numerous recorded instances of fire personnel reviving victims who were not breathing, and there is no doubt that they perform a valuable service. However, in the event of a full heart arrest or major injury and shock, fire personnel are not presently trained nor legally able to fully diagnose a patient's condition and to utilize the needed lifesaving equipment and drugs. Unfortunately, there is no way to identify the number of cases in past years in which added training and equipment would have saved a life at the scene or stabilized a victim sufficiently at the scene to enhance his chances of survival upon reaching the hospital.

EMERGENCY MEDICAL CARE COMMUNICATIONS FACILITIES

At the present time, there is no comprehensive communications network in the Bakersfield metropolitan area. The establishment of such a system is a difficult task in any geographical area. It is even more complex in the Bakersfield area due to city-county jurisdictional boundary lines. No emergency communications network is in existence to provide for two-way communications between hospitals. In similar fashion, no two-way communications exist between the hospitals and local law enforcement agencies. Two-way communications are in existence between the ambulance companies and three of the community's hospital emergency rooms. Kern Medical Center and Physicians Hospital do not currently have this capability.

PRESENT EFFORTS TOWARD ESTABLISHMENT OF A PARAMEDIC PROGRAM IN BAKERSFIELD

In July, 1974, the Health Sciences Department of Bakersfield College

and San Joaquin Hospital started a pilot emergency medical training program leading to paramedic certification. On December 17, 1974, the Board of Supervisors endorsed the San Joaquin Hospital training program. The endorsement was in response to a request from the hospital for approval of their pilot training program and establishes it as the base hospital for all present paramedic operations and communications.

Eleven members of the Bakersfield Fire Department originally enrolled for the initial program. Two members later dropped out. As of January 13, 1975, nine members of the department had successfully completed the classroom and clinical portions of the required training. An additional 200 hours of field internship training under the supervision of a mobile intensive care nurse would still be necessary before these individuals could be certified as paramedics.

The private ambulance services operating within the city limits are considering providing paramedic services in conjunction with their operations. One company is currently in the program at this time. Six individuals are presently undergoing certification. Two of these are now certified and are providing 7-day, 24-hour service. The remainder are expected to be certified by approximately June 1. Equipment has been purchased to equip the company's two ambulance units for this purpose.

In the fall of 1974, a Paramedic Advisory Board was set up largely through the efforts of Bakersfield College, San Joaquin Hospital, and the County Health Office. The Board is presently involved with

the establishment of rules and regulations to govern paramedic operations.

KERN COUNTY POSITION REGARDING PARAMEDIC PROGRAMS

The County of Kern is not presently studying the possibility of establishing a paramedic program in the unincorporated area.

County action to-date has concerned itself only with the County Emergency Medical Care Committee as described earlier in this chapter. An evaluation of the need for a countywide paramedic program would be part of an overall study of emergency medical care services as referred to earlier in this chapter.

CHAPTER V

PARAMEDIC PROGRAMS IN GENERAL

This chapter will describe the goals, services, and benefits of a paramedic program, then address several important operational considerations which, regardless of a paramedic program, would upgrade the present EMS System.

GOALS, SERVICES, AND BENEFITS

The goals and services of a paramedic program are easily distinguished, yet the benefits are more elusive. The goals of a program are similar to those of other medical and health organizations and, simply stated, are to reduce mortality and morbidity.

A paramedic program operates to reduce mortality and morbidity by providing certain medical services. The services a paramedic is qualified to perform lie on a spectrum between those that a physician can perform and those which a first aider can render. According to the Wedworth-Townsend Paramedic Act (Appendix A), a paramedic is certified to perform a range of services from basic first aid to a level roughly comparable to those of a registered nurse. The services most often mentioned and which are above the presently authorized level of ambulance and fire personnel include: defibrillating; administering intravenous agents; performing gastric suction by intubation; performing pulmonary ventilation by use of esophageal airway; and administering certain classes of drugs. All too frequently the justification of a paramedic is based upon the emotion

of saving a heart attack victim. It is important to remember that a paramedic performs a wide variety of medical services and responds to many mixed emergency situations.

These procedures can, however, only be administered at the scene upon orders from a physician or a mobile intensive care nurse. Radios are used to establish voice contact (scene to hospital) to enable orders to be given and to transmit measurements of bodily functions (telemetry).

From the goals and services which a paramedic program affords, it may be assumed, by observation and inference, there are benefits to be gained; few individuals would argue there are none. Nevertheless, the difficult questions to resolve are, "by how much, or to what degree would these benefits be realized, and to what degree would the benefit add to the length and quality of life."

The answers to these questions are extremely complex, since many variables affect the benefit outcome. For instance, each element in the EMS System, from training and communications to transportation and equipment, affects the outcome. Likewise, the outcome is affected by the special paramedic capabilities (defibrillation, administration of drugs, and I.V.'s); but by how much? Then too, variations exist among patients; their individual illnesses or injuries affect the degree to which they can benefit.

A discussion of the problems of measuring patient benefits could be continued ad infinitum. The literature is filled with attempts to document the benefits of a program, yet one salient fact remains:

Whatever benefits are found in other programs, they cannot be applied to Bakersfield at face value. Just as no two counties or cities have the same population or patient characteristics, no two EMS Systems are the same and neither are two different paramedic programs. Certainly, the incidence of mortality and morbidity would be reduced with a program, yet the extent of the reduction is presently unknown. Correspondingly, a paramedic program would provide system benefits by improving the level of medical knowledge and skill throughout the county.

Though complicated problems arise when scientifically estimating the number of patients who would benefit from a program, a fair expression can be gained when viewing the conclusions of others:

1. Ventura County sought responses from chief physicians of the county's three largest emergency departments concerning the benefits of a program. One physician thought 3.5 percent of the patients coming to an emergency department could benefit. Another physician believed less than 1 percent would benefit. The third physician believed that three of fourteen cardio-pulmonary resuscitation cases would benefit. These cases were among 13,500 patients seen in an emergency department during a recent six months' period. Each physician expressed concern over a low percentage benefit if a program were established.³
2. St. Mary's Hospital in Long Beach, after a year-long intensive study, concluded that, "More cardiovascular patients are now dying in the hospital rather than arriving D.O.A.

as they did before the EMS program."⁴ The specific statistics indicate that the D.O.A. figures are down 42.5 percent, but that emergency room deaths are up 73.8 percent.⁵ Therefore, what are widely reported to be "paramedic saves" are, in reality, only a transfer of death from one statistical category to another. Additionally, it was found that, "A retrospective six-month study was undertaken to determine the short and long term survival of patients successfully defibrillated. A total of eighty-five patients were treated by defibrillation and cardio-pulmonary resuscitation by the paramedic units between the dates of July 1, 1973 through December 31, 1973. Eighty-three of the eighty-five patients received one or more of the 'standard' cardio-therapeutic drugs during the rescue attempt. Of the eighty-five patients who received defibrillation, seventy-two patients died, four at the scene, and fifty-five at the emergency room, and thirteen in the hospital. A total of thirteen patients survived to be discharged from the hospital. One patient died ten months following his arrest but had been living at home with partial restriction on his activity until his subsequent readmission to the hospital and death. The other twelve patients who were discharged are alive as of December, 1974."⁶

As this study developed, an attempt was made to determine the number of "true paramedic runs" that would be made in Bakersfield. A true paramedic run is defined as one in which medical services required by a patient are consistent with paramedic skills and training, yet above those of others who are not paramedics.

Initially, we found that such information was not available, either from the Fire Department, the private ambulance companies, or from the hospitals. However, since a private paramedic unit went into service, more accurate records have been maintained (see Table V-1). From these figures, it can be seen that there is little "true paramedic" training needed. Less than 1 percent required medication and less than 11 percent required an I.V. Of the March calls, less than one per day needed to utilize paramedic services. All of the other services (oxygen, cardio-pulmonary resuscitation, control bleeding, splinting) could have been provided by persons with Advanced First Aid training such as an EMT-I receives. Ventura County found that there was not sufficient justification for a program.⁷

To-date, all appeals for a paramedic program, whether they be personal or written statements to the City Council or in media presentations, have been on an emotional level. No one has yet to produce figures or other quantifiable data to justify the program.

OPERATIONAL CONSIDERATIONS

There are several important operational considerations which would affect a paramedic program and the EMS System itself. This section will discuss paramedic proficiency, communications, and hospital equipment.

Paramedic Proficiency

Paramedic proficiency is the level of skill necessary to maintain peak service capabilities. It is directly affected by training and the number of paramedic calls made. It is estimated that a

TABLE V-1

EMERGENCY CARE RENDERED⁸

SAN JOAQUIN HOSPITAL

	<u>January 1975</u>	<u>February 1975</u>	<u>March 1975</u>
Defibrillation	1	2	
Communication	18	20	65
Monitoring	7	11	23
Vital Signs	15	20	63
*I.V.'s	3	8	13
Cardiac Massage			2
Resuscitation		1	1
CPR		1	
Oxygen	6	5	19
Control Bleeding		1	10
*Airway		1	1
*Medication	1	4	4
*Plasmanate			1
Splinting	2	4	6
Extrication			1
Bandaging	1	1	10
*Phlebotomy			1
Ice Packs			2
Ammonia Inhalant			2
*Suction			1
*Intubation	1	1	
Total Services	18	20	79
Average Response Time	12**	7	5

*Considered to be of a "paramedic" nature; all others could be accomplished by an EMT-I.

**Many of these calls were in the county and response times were longer.

paramedic needs a minimum of three runs (serious nature) per day to keep up his skills.⁹ As indicated above, there is some doubt as to whether this could be maintained.

Communications

The present emergency medical care communications system was described in Chapter IV. For a paramedic operation to be completely successful where jurisdictional problems arise, it may be necessary to establish a centralized and standard medical disposition procedure for all organizations involved.

Currently, after receipt, an emergency call is often relayed at least twice before the responsible organizations are notified. During the relay process, no two organizations have a complementary notification procedure. On top of this, emergency calls are often received and relayed during peak loading conditions when judgment is necessary. Therefore, an interorganization medical dispatching procedure would help ensure speed and accuracy of notification and increased agency coordination.

Radio Transmission

Thought should also be given to radio transmission problems encountered in the Los Angeles area which may develop in Bakersfield and Kern County. Three basic problems affecting radio transmission in Los Angeles County are:

1. "Large gaps in radio coverage exist due to hilly terrain, large buildings, and unsuitable placement of transmitters and receivers."

2. "Communication difficulties arise due to the presence of, and the inability to deal with, co-channel interference between units, at the same or at a different base hospital, during peak traffic periods."
3. There are only five frequencies allotted to emergency medical communications in the U. S. Overcrowding has caused stacking of frequencies and a moratorium on base hospitals is in effect until a countywide master plan is completed and the FCC allocates more frequencies.

While these problems are not insurmountable, they appear likely to be encountered on the citizen band radio channels that are used for paramedic use in this county. First, there would be similar factors affecting radio transmissions—geography and multiple channel users. Second, transmissions originating from adjoining counties may "spill over" causing interference and faulty signals.

In order that these predicted problems can be anticipated and alleviated, meetings are currently in progress between Communications and EMS officers of seven Southern California counties. One conclusion of the study is, therefore, to resolve the predicted radio channel coverage and spill-over problems before paramedics go into service.

Hospital Equipment

Equipment in the emergency departments of acute care hospitals located throughout the county can and should be upgraded regardless of a paramedic program. The following list of equipment is recommended by many Hospital Administrators, as necessary for the operation of a paramedic program:

Portable defibrillators
Portable suction unit
Portable X-Ray unit
Portable cardiac massage unit
Gurneys
Examination tables
ENT chairs
Stretchers

The capabilities of each of the Kern County hospitals are presented in Appendix G.

CHAPTER VI

PARAMEDIC EXPERIENCE IN OTHER JURISDICTIONS

The quality of emergency medical care in the United States has improved tremendously over the past decade with the establishment and improvement of emergency medical facilities and systems. Nevertheless, statistics indicate that people continue to die or become disabled due to the lack of emergency medical care.

Jurisdictions throughout the United States and England have attempted to resolve this problem and to lower mortality and morbidity rates by providing emergency medical care by using paramedics. The underlying concept is that paramedics possess specialized training and have the capability through sophisticated equipment to communicate with base hospitals where physicians or registered nurses can relay medical information to direct their actions.

A survey of other entities currently conducting paramedic programs indicates that the paramedic service has been relatively successful. The success, in most cases, has been stated in terms of public acceptance, as well as acceptance by the legislative body in terms of financing the program. On the other hand, few, if any, of the paramedic reports received have an evaluative mechanism with which to determine any decrease in mortality or morbidity. In fact, Los Angeles County, which is considered to have one of the most successful programs in the United States, indicates that to

identify a true decrease in the mortality rate is an extremely difficult task due to the enormous obstacles encountered logistically in conducting such a study. Studies to determine the decrease in mortality rate have been undertaken in some areas but are very infrequent, since to accomplish the task necessitates sizable funding for the appointment of a data analyst, a full-time staff, and computer accessibility.

The experience of other entities indicates that most of the patients requiring emergency medical care had myocardial infarctions. Most patients suffering from that affliction either make it to the hospital or die in the first twenty to thirty minutes. Therefore, in the long run, most of the patients treated by paramedics probably would have made it to the hospital by themselves without significant problems.

In reviewing the various paramedic reports compiled by the entities surveyed, we have been able to identify a number of problem areas that must be considered prior to establishing a paramedic program. The first problem identified is that of financing. Without substantial taxing ability, this program would be difficult for any governmental entity to sustain over a long period of time. The second major problem identified is that relating to the number of paramedic calls required to maintain medical proficiency.

In summary, it appears that many of the programs currently operating in the United States have been implemented based on emotion rather than fact. The paramedic concept is exciting and, on the surface, appears to be an extremely effective way of providing

medical care to the public. However, in most instances where a paramedic program has been implemented, there has been a lack in the number and quality of emergency medical care facilities and coordinated ambulance services. In addition, most entities that have implemented the program are "densely populated" which generates sufficient calls to maintain proficiency. Also, the larger municipalities appear to have a greater financial capability of providing funding on an "on-going basis" for such a program.

EXISTING PARAMEDIC UNITS

As of the latest report received from the Director of Paramedic Training for Los Angeles County,¹⁰ there are eighty-six paramedic (or mobile intensive care) units operating in that county with ninety-two projected by July, 1975. This includes thirty units operated by the Los Angeles County Fire Department, two by the County Sheriff's Department, and seventeen by the City of Los Angeles. Table VI-1 summarizes the operational paramedic programs, by county, as reported to the State Department of Health on January 1, 1975. As of January 1, there are only six out of fifty-eight counties in the state with operational paramedic programs.

In addition, there are fire department paramedic teams operating in Inglewood, Redondo Beach, Beverly Hills, Pasadena, Long Beach, Torrance, Monrovia, Gardena, Manhattan Beach, Culver City, and Arcadia, among others. This preponderance of firemen as paramedics, however, is not universal. The cities of Los Angeles, Palm Springs, Pomona, El Monte, Monterey, Montrose, portions of Glendale and Santa Monica, Modesto, Riverside, and San Francisco are receiving

TABLE VI-1
PILOT PARAMEDIC PROJECTS
January 1, 1975

COUNTY	CERTIFIED PERSONS		SERVICE PROVIDERS				TOTAL UNITS	BASE HOSPITAL
	NURSES	PARAMEDICS	AMBULANCE	FIRE	OTHER	TOTAL		
Los Angeles	492	638	7	22	1	30	85	23
Orange	46	47	0	6	0	6	6	4
Riverside	58	23	2	0	0	2	6	5
Santa Barbara	6	13	1	1	0	2	2	1
Santa Clara	0	8	0	1	0	1	1	1
Stanislaus	302	14	3	1	1	5	5	7

paramedic services from trained civilians and local ambulance firms. In Los Angeles, six local ambulance firms will be sending employees through the Los Angeles County program during the 1974-1975 year. Civilian personnel will meet the same entrance and graduating standards as applied to all previous fire paramedics and will be subject to the same continual monitoring as applied to paramedics working for public agencies.

During the conduct of this study, many cities were contacted in order to ascertain how their individual programs functioned. This information has been summarized in Appendix H.

CHAPTER VII

ALTERNATIVE MEANS OF PROVIDING PARAMEDIC SERVICES

There are four basic alternative means of providing paramedic services in Bakersfield: (1) having paramedic services performed by private ambulance companies; (2) the utilization of city firemen as paramedics; (3) having paramedic services performed by both city fire personnel and private ambulance services; and (4) a joint city-county, government-operated paramedic program. Each of these alternatives are explored below. It is important to mention here that the City Council has already determined that if a city paramedic program is initiated in the future, the transportation of individuals to the hospital will continue to be carried out by private ambulance services.

Alternative I: Private Ambulance Services

As indicated in Chapter IV, one ambulance company presently operating within the City of Bakersfield has already decided to provide paramedic services. Hall Ambulance Company has six individuals in the program at the present time. Two of the six have been certified. All six are expected to have completed the total paramedic course requirements by approximately June 1.

Paramedic units operated by private firms offer some distinct advantages which could permit the City to avoid difficulties inherent in the other alternatives discussed later in this chapter.

- Ambulance firms are not subject to the geographical city-county boundary lines problem indicated later in this chapter.
- Ambulance attendants who are presently receiving paramedic training are already trained at the EMT-I level and have several years of operating emergency ambulance experience. The best available evidence indicates these individuals will respond in medical emergencies at least as well as public safety personnel and they will very likely be more effective as paramedics upon completion of training because of their specialized background and present medical training.
- Since the ambulance firms' personnel are physically separated from city employees and work for a private firm, the City can avoid morale problems and difficulties involved in having firemen/paramedics seek promotion which necessitates leaving the paramedic operation.
- The ambulance firms scheduled to institute paramedic units already operate on a 24-hour, 7-day week basis like the Fire Department. However, their employees presently work an average of sixteen days per month as opposed to the City Fire Department where firemen/paramedics or civilian paramedics would work an average of ten days per month. This permits the private firm to operate a paramedic unit with six men as opposed to the nine required by a city operation. Requirements of the Federal Fair Labor Standards Act may reduce fire duty hours even further in the future.

- By not performing a dual role as firemen might be expected to do, private firm paramedics will not experience as much fatigue and thus probably will operate at a higher level of efficiency.
- The vast majority of public agencies providing paramedic services do not charge for these services. As a result, full program costs are borne by all citizens through the tax system. Where private firms might operate paramedic units (such as in Palm Springs), they charge the recipients of services directly (see Appendix E for charges set by the City of Los Angeles for such services). This eliminates the necessity of placing an additional burden on the city tax rate.
- On the basis of the operating experience of other jurisdictions, it appears necessary to send backup personnel on many emergency calls to assist the paramedics. The pattern thus far has been to send fire personnel with fire equipment. However, if private ambulance firms provide paramedic services, this situation will not occur.
- The City would not be involved in questions pertaining to liability.

There are disadvantages to having paramedic services performed by private ambulance companies. First of all, the City would have to rely more heavily on base hospital medical personnel to judge and correct the quality of service provided by a private firm. If paramedics were municipal employees, the City could more easily obtain

judgments on quality and order corrective action directly through supervisors.

The question of turnover must also be considered in analyzing this alternative. There is probably little argument that the turnover rate in the private ambulance field far exceeds that of city employment; specifically, personnel in the fire service. However, local ambulance firms operating in Bakersfield feel that this gap will be narrowed with the initiation of paramedic service and additional opportunities and salary benefits for their personnel.

Alternative II: City Firemen as Paramedics

The second alternative to consider is the utilization of city firemen as paramedics. The major arguments used to support this alternative are as follows:

1. Fire departments operate on a 24-hour, 7-day week basis as must any paramedic unit that is to supply reliable emergency service. Personnel are, therefore, always available.
2. Fire stations provide already existing living quarters.
3. Citizens are often familiar with fire personnel serving an emergency rescue function.
4. Firemen may be able to serve a dual role by responding to fires and fighting fires as needed, remaining ready to aid injured persons at the fire scene, leaving the fire scene if a medical emergency occurs elsewhere, and responding to medical emergencies during times which they might otherwise be inactive as firemen.

On the other hand, there are disadvantages in having paramedic services provided by the Fire Department.

- Fire paramedic units could only operate within city geographical boundaries. The number of unincorporated county islands surrounded by city territory, plus the fact that only approximately one third of the metropolitan area is within the city corporate boundaries, limits the effectiveness of a comprehensive paramedic program for residents of the Greater Bakersfield area.
- Firemen serving a dual function as paramedics and firefighters may encounter conflicts between the two functions. For instance, if a paramedic is fighting a fire and a medical emergency occurs, the activity at the fire scene may lengthen the time it takes to notify the paramedic of the call. This time linkage may be critical if it is a coronary emergency. Additionally, performing the dual role will fatigue the fireman/paramedic. Although the effect on his operating ability is difficult to measure, there is no doubt that effectiveness is decreased. This is indicated in the report from one Los Angeles jurisdiction that its firemen/paramedics have asked for additional sleeping time in the morning because responding to both fires and paramedic calls left them too tired to function properly toward the end of their shift.¹¹
- If some firemen are likely to be called to medical emergencies which may easily require thirty to sixty minutes at the scene, this reduces the effective level of manning and may possibly

affect the City's firefighting effectiveness. This point becomes more salient when it is realized that most other jurisdictions have experienced a 50 percent to 200 percent increase in the number of paramedic calls during the first year of service. This expected increase would further reduce the availability of paramedics as firefighters. The alternative, of course, is to hire additional firemen to replace those trained as paramedics.

- Every fire department using firemen as paramedics has encountered difficulties when paramedics desire to be promoted. The only way an individual can be promoted is to leave the paramedic position to move into the higher ranks of the fire promotional series. This means that if the City selects to train its currently most highly qualified firemen as paramedics, these men will likely leave the paramedic field through promotion just as their skills become most highly developed. The alternative is to provide a separate promotional series for paramedics apart from, but parallel to, the regular fire promotional series. However, this is not practical in a jurisdiction as small as Bakersfield, since there would be little or no difference in the responsibilities or practical authority of one paramedic as opposed to another in Bakersfield.
- Many fire departments with operating paramedic units have encountered growing morale problems, the ultimate extent of which are presently unclear due to the infancy of the paramedic programs. However, where firemen are also trained as paramedics, it appears likely that they will develop a separate

group feeling, and some jurisdictions have experienced a shift of loyalty away from the fire department and towards the hospital. In several jurisdictions, the paramedic group has already requested special privileges. It is also clear that paramedics/firemen frequently expect additional salary because they are more highly trained and respond to more calls than do the normal firemen. A recent trend has been to grant a salary increment of 5 percent to 10 percent. Appendix H of this report indicates that of the thirteen cities surveyed that are presently providing paramedic services, nine or 70 percent are paying a salary differential for paramedics.

- Some cities, such as Inglewood, Arcadia, and Pasadena, have found that in order to provide a more effective paramedic program, it was necessary to assume responsibility for the transportation of patients to medical facilities.

If the City Council determines that the City should provide a paramedic service for the community and utilize firemen for this purpose, a total of nine men will be required to staff the first unit. This will provide two men for each of the three fire shifts (24 hours each shift). Additionally, it provides three more men to cover for illness and vacation, and to guarantee that if any paramedic resigns, is promoted, or is decertified, there will be an absolute guarantee of two men per shift.

There are two options for providing paramedic services through the Fire Department:

1. The first option involves the utilization of existing firemen as paramedics.

This option is based on the premise that the Fire Department can provide a paramedic services program to the community without any additional manpower. As indicated in Chapter IV, nine firemen have recently completed the required classroom and clinical time required for a paramedic. They lack the 200 additional hours of supervised performance in actual emergency situations which is necessary before they complete their EMT-II training and are able to function as full-fledged paramedics. If the City Council determined that the City should initiate a paramedic service, these men could be used to start a city paramedic program and assume the dual function of both firemen and paramedics.

It appears that the first paramedic unit could be established under this option with little initial cost based on presently known factors. However, it is unclear as to what the future effect would be on the City's response time, its manpower capabilities, and its overall firefighting effectiveness. San Joaquin Community Hospital has offered to donate the paramedic equipment for the first unit.¹² No funds would have to be budgeted for paramedic supplies, since these would be furnished by the hospitals who, in turn, would bill the patient. A total of \$9,000 would have to be budgeted for malpractice insurance coverage. As indicated later in Chapter IX, this figure could increase substantially in future months considering the expensive nature of malpractice insurance.

The presently known first-year cost of each additional or succeeding unit based on current fire duty hours and manpower requirements would be approximately \$50,895 as shown in Table VII-1. The above figure assumes that no additional salary increments would be given to paramedic personnel.

2. The second option is for the City to hire nine new firemen. This would permit the assignment of nine men as paramedics without reducing the present fire manning level. It would also permit the paramedics to avoid serving the dual role as firefighters, although incidentally it would mean that they would likely not receive sufficient firefighting experience to qualify them for promotion into fire positions at a later date, possibly necessitating a separate promotional series for paramedics, special promotional consideration for paramedics, or transfer back into firefighting tasks for some time prior to the occurrence of a promotional examination.

The presently known first-year cost of this option for the initial unit, again assuming no additional salary increment for paramedics, as shown on Table VII-2, would be approximately \$175,626.

Two factors qualify the validity of these costs. First, discussions with other cities presently operating paramedic programs indicate the increase in the number of emergency medical calls that will most likely follow the initiation of a paramedic program will necessitate the addition of a second paramedic unit probably within one year. The City of Inglewood, for example, with approximately the same

TABLE VII-1

ESTIMATED FIRST-YEAR COST OF SECOND AND
EACH SUCCEEDING PARAMEDIC UNIT BASED ON
UTILIZATION OF EXISTING FIREMEN AS PARAMEDICS
(EACH UNIT—7 MEN)

Estimated First-Year Costs

Training Overtime Costs	\$14,910*
Insurance (malpractice coverage)	7,000
Rescue Truck (fully equipped)	18,450
Paramedic Equipment	10,535
Possible Additional Equipment and Communications Costs	Unknown
 TOTAL KNOWN COST	 \$50,895 Per Unit

*Based on seven (7) men at the top step of the present (1974-75) salary range and the assumption that 70 percent of the training time would be during off-duty hours requiring payment at the rate of time and one-half under the Fair Labor Standards Act.

TABLE VII-2

ESTIMATED FIRST-YEAR COST TO HIRE
ADDITIONAL FIREMEN TO TRAIN AS PARAMEDICS
(FIRST UNIT—9 MEN)

Estimated First-Year Costs

Wage and Fringe Benefit Costs	\$147,456*
Training Overtime Costs	19,170**
Insurance (malpractice coverage)	9,000
Paramedic Equipment	Donated
Possible Additional Equipment and Communications Costs	Unknown
TOTAL KNOWN COST	\$175,626 Per Unit

*Based on nine (9) men at the top step of the present (1974-75) salary range; assumes no salary differential for those trained as paramedics.

**Based on the assumption that 70 percent of the training time would be during off-duty hours requiring payment at the rate of time and one-half under the Fair Labor Standards Act.

population as Bakersfield, but with only nine square miles within its city limits (as opposed to 32 square miles), presently needs two paramedic units and is planning a third in order to avoid having an emergency medical call come in when the existing unit(s) are already occupied.

The establishment of the second and each succeeding unit would require hiring and training seven additional men as paramedics. It should be noted that the Fire Chief feels that only three additional personnel would be needed for the second unit. This number would staff two units, but would provide no relief for sickness, vacation, etc. Under this manning level, any of these occurrences would put one unit out of service or force the recall of off-duty personnel.

Second, in most jurisdictions, each paramedic unit is accompanied to the scene of the illness or accident by other firemen and/or fire equipment. Practical experience has proven that in the event of a major cardiac case, more than two men are frequently necessary to handle all of the equipment needed in properly caring for the patient (it has become evident that only two of the men need be paramedics). The cost of sending fire equipment to the scene and the possible effect upon firefighting capabilities cannot be determined at this time.

The presently known first-year cost of the second and each succeeding unit would be approximately \$165,583 as shown in Table VII-3.

In summary, under either of the two options discussed above, the provision of paramedic services by the City Fire Department would have a substantial impact on the City's financial resources. These

TABLE VII-3

ESTIMATED FIRST-YEAR COST OF
SECOND AND EACH SUCCEEDING PARAMEDIC UNIT
BASED ON HIRING OF ADDITIONAL FIREMEN
(EACH UNIT—7 MEN)

Estimated First-Year Costs

Wage and Fringe Benefit Costs	\$114,688*
Training Overtime Costs	14,910**
Insurance (malpractice coverage)	7,000
Rescue Truck (full equipped)	18,450
Paramedic Equipment	10,535
Possible Additional Equipment and Communications Costs	Unknown
 TOTAL KNOWN COST	 \$165,583 Per Unit

*Based on seven (7) men at the top step of the present (1974-75) salary range; assumes no salary differential for those trained as paramedics.

**Based on assumption that 70 percent of the training time is during off-duty hours requiring payment at the rate of time and one-half under the Fair Labor Standards Act.

costs could only be largely offset by a direct charge for each paramedic service rendered.

Alternative III: Joint City-Private Ambulance Paramedic Services

A third alternative is to have paramedic services in the Bakersfield metropolitan area provided by both city fire personnel and private ambulance firms.

There are a number of problems associated with this alternative:

- Difficulties in devising a system to determine whether the City or the private ambulance firm responds to a given paramedic call.
- The lack of a centralized emergency communications system, as noted in Chapter IV, could pose serious problems and delays in responding to calls for service.
- The obvious inequity of private ambulance service being provided on a user-pay basis as opposed to city costs being a part of the general property tax rate paid by all residents. (The possibility of providing paramedic services on a strictly user-pay basis is discussed in Chapter VIII.)

Alternative IV: Joint City-County Paramedic Services Program

A fourth alternative would be to have both City and County Governments initiate paramedic programs either separately for respective jurisdictions or through a joint powers agreement to eliminate jurisdictional problems. This does not appear to be likely at present, as indicated earlier in the report, since the County is not now contemplating the establishment of a paramedic program.

CHAPTER VIII

OVERRIDING CONSIDERATIONS

Pertinent to all of the above alternatives are a number of important and critical overriding factors that must be given serious thought in this report. While some of these have been briefly discussed earlier in the report, they need to be emphasized again.

Response Time

When evaluating which entity (public or private) should operate a paramedic program, one of the important considerations is how quickly they can respond to a service request.

For purposes of making comparisons, an approximate five-minute response time/area coverage pattern was developed. The following discussion refers to Figures 1 to 6 at the end of this narrative.

Figure 1 shows the irregular boundary within which any city operation would have to function.

Figure 2 shows the site and district area for each fire station.

Figure 3 shows Hall Ambulance five-minute service area.

Figure 4 shows Flinn Ambulance five-minute response area.

Figure 5 shows the combined Hall/Flinn area.

Figure 6 shows that it would require three units, not just

one or two, in the city to get a five-minute response pattern.

Comparing Figures 5 and 6 shows that it would require a minimum of three city units to get approximately the same service area as now being provided by the private ambulances. However, if the primary emphasis is on "first-in," then the city locations provide this on a two-to-one ratio, as seen from comparing Figures 2 and 5.

It can be clearly seen from these figures that the City can provide more rapid first-in response than private ambulance companies. If properly utilized, a higher level of initial service can be provided to augment the private ambulance service and further justifies the continuance of initial engine company's response.

User-Pay Concept

The question of who should pay for a paramedic program in the Bakersfield area is of paramount importance. As indicated earlier in this report, the local private ambulance firms have just initiated a paramedic service which, of course, operates on a user-pay basis. User charges are quite common in municipal government. The most common examples are sewer charges, refuse collection charges, and charges for swimming pools, golf courses, and other park and recreational facilities. This concept should receive careful consideration in analyzing and weighing the above alternatives for paramedic services.

Geographical Boundary Limitations

There are few geographical areas in the State of California that have such a large part of the metropolitan area outside the

corporate city limits. The latest population figures indicate that of the 194,000 residents presently in the Bakersfield metropolitan area, only 76,400 or 39 percent are within the city boundaries. The fragmented nature of governmental services between the City and the County deserves primary attention in analyzing the alternatives for paramedic service as described above.

If the City decides to enter the paramedic field, city personnel would only be able to operate within the corporate limits.

Hospital Locations

Because of the physical locations of the five hospitals serving the Bakersfield metropolitan area, there are few patients who could not drive or be driven to one of these facilities within fifteen minutes. Because of the proximity of medical services, it can be questioned as to whether a paramedic service would be more appropriate for rural rather than urban areas where expert medical care is not readily available.

Figure 1

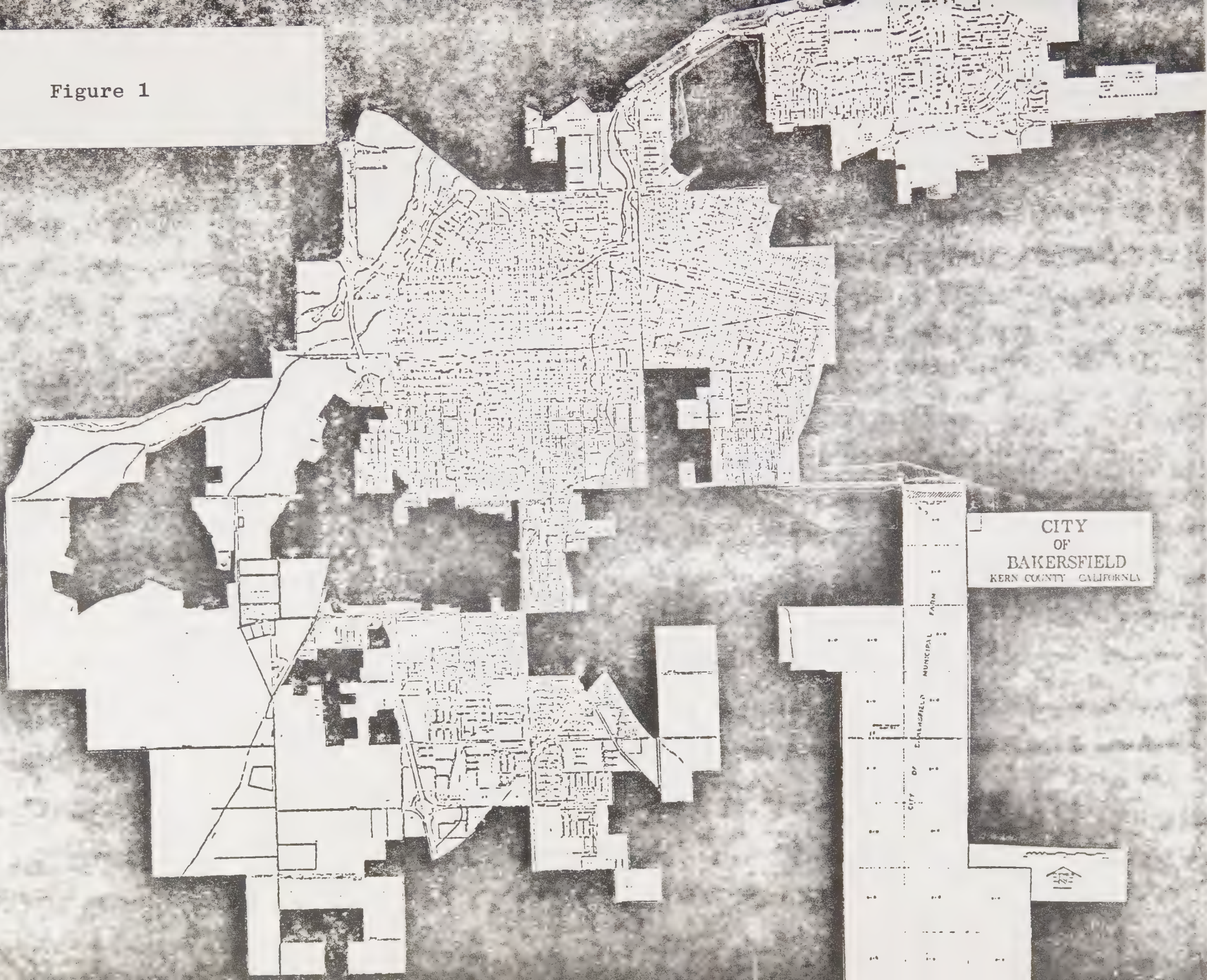


Figure 2

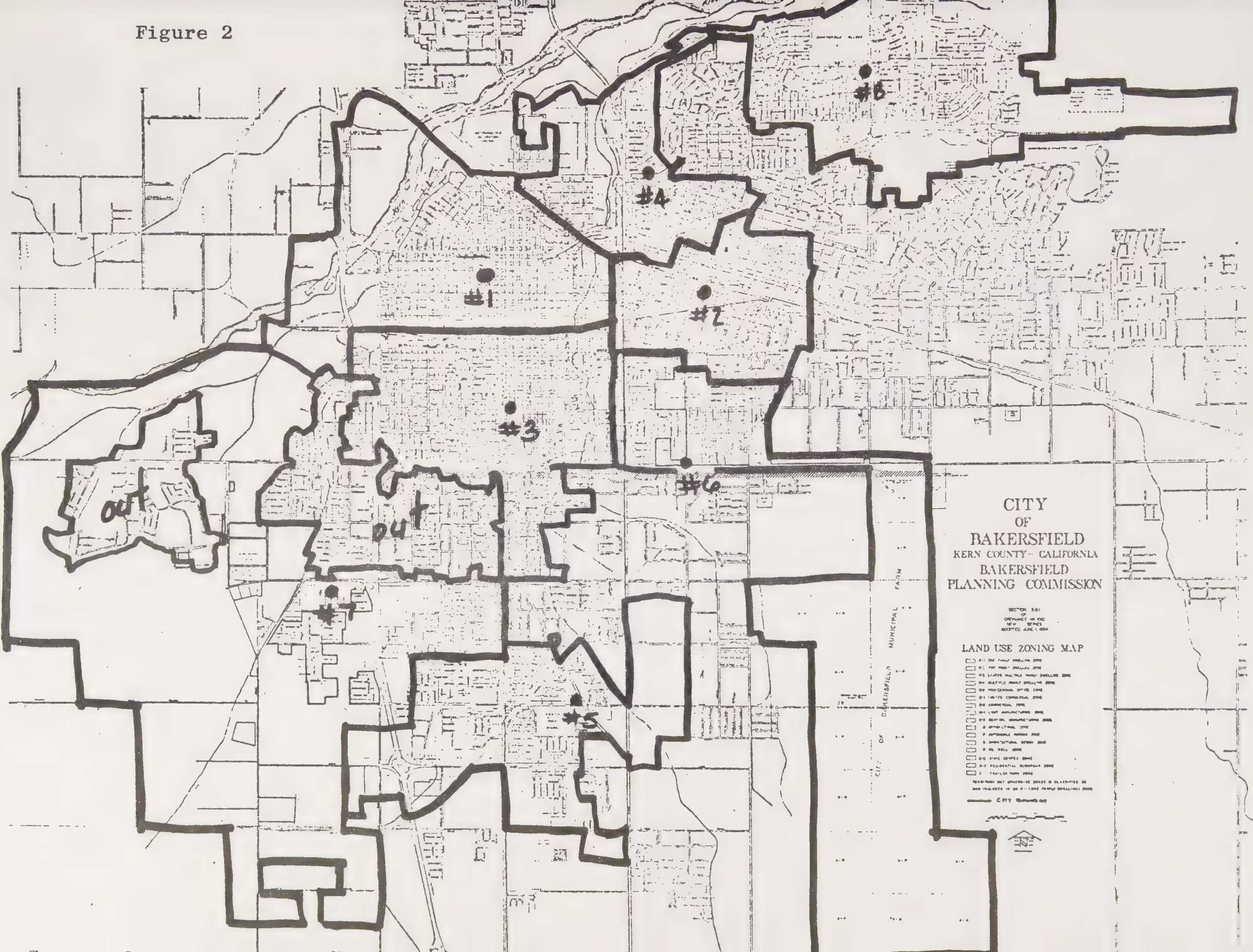
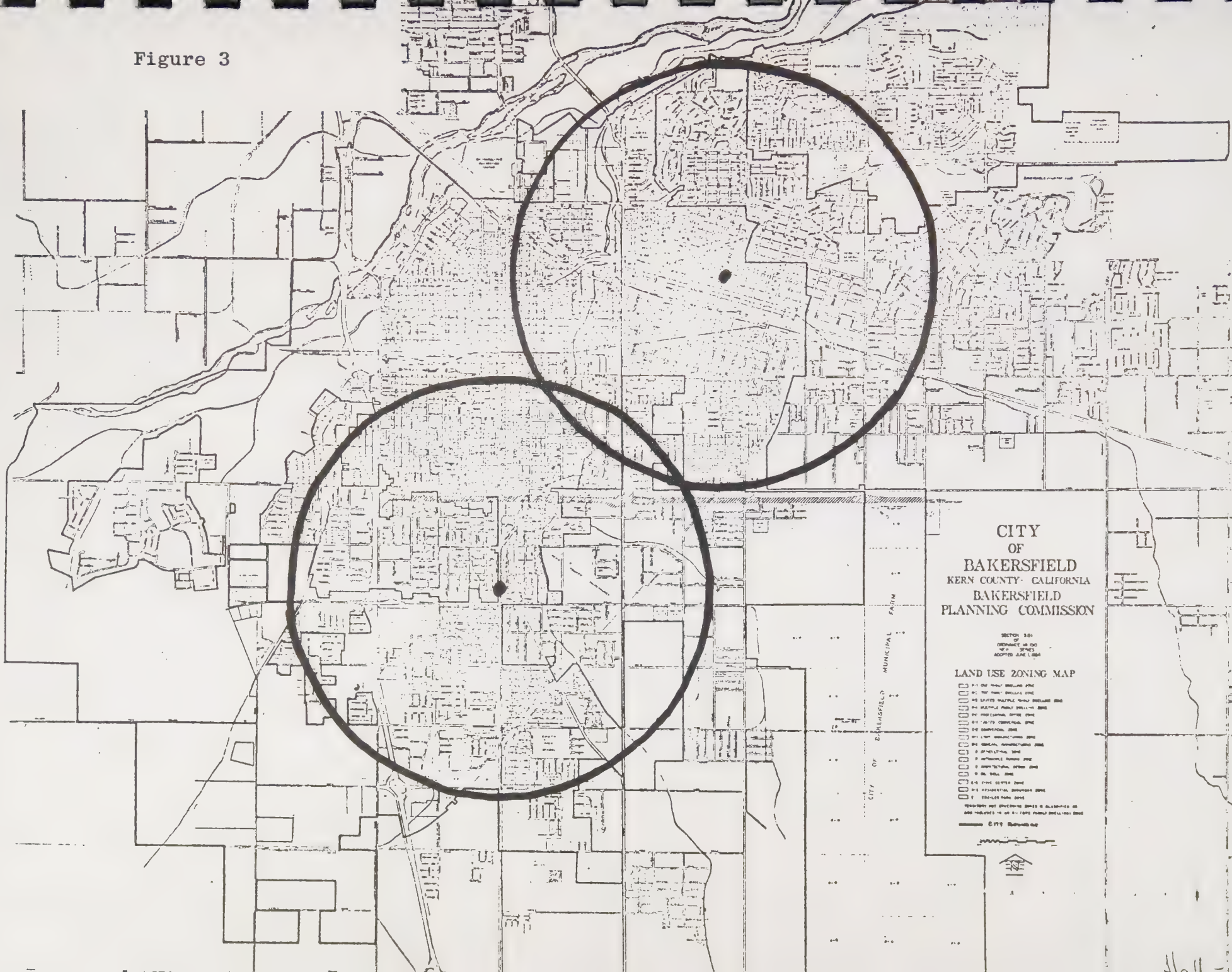


Figure 3



CITY
OF
BAKERSFIELD
KERN COUNTY, CALIFORNIA
BAKERSFIELD
PLANNING COMMISSION

SECTION 3.01
OF
ORDINANCE NO. 100
SERIES 1
ADOPTED JUNE 1, 1984

LAND USE ZONING MAP

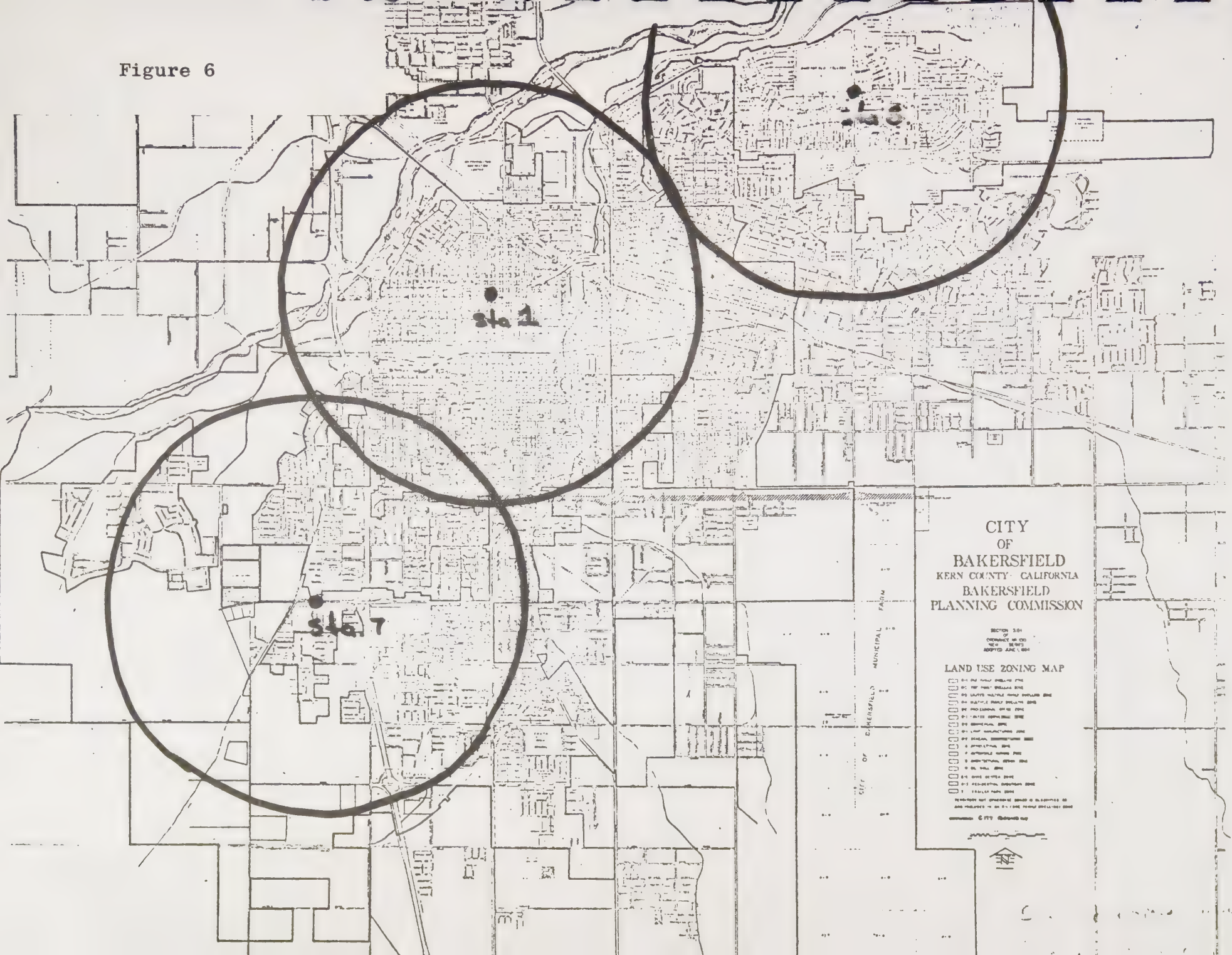
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- 1-98 NINETY EIGHT FAMILY DWELLING ZONE
- 1-99 NINETY NINE FAMILY DWELLING ZONE
- 1-100 ONE HUNDRED FAMILY DWELLING ZONE

RESIDENTIAL USE GROUPINGS ARE CLASSIFIED AS
AND INDICATED BY AN "R" TYPE FAMILY DWELLING ZONE

CITY Boundary Map



Figure 6



CHAPTER IX

LIABILITY FACTORS IN PROVIDING PARAMEDIC SERVICE

When a qualified paramedic is working in the field, he does so at the direction of a licensed physician through direct radio communication. The primary responsibility for patient care is thus assumed by the physician and, therefore, the paramedic is not personally involved with liability concerns since he does not act independently, but rather as an agent for the physician, and restricts his treatment to those medical orders given by a licensed physician.¹³

The Vehicle Code also appears to provide some relief from liability:

"No act or omission of any rescue team operating in conjunction with an authorized emergency vehicle as defined in Section 165, while attempting to resuscitate any person who is in immediate danger of loss of life, shall impose any liability upon the rescue team or the owners or operators of any authorized emergency vehicle, if good faith is exercised.

For the purposes of this section, 'rescue team' means a special group of physicians and surgeons, nurses, volunteers, or employees of the owners or operators of the authorized emergency vehicle who have been trained in cardiopulmonary resuscitation and have been designated by the owners or operators of the emergency vehicle to attempt to resuscitate persons who are in immediate danger of loss of life in cases of emergency.

This section shall not relieve the owners or operators of any other duty imposed upon them by law for the designation and training of members of a rescue team or for any provisions regarding maintenance of equipment to be used by the rescue team."¹⁴

None of the communities contacted (see Section VI) have, to-date, experienced any claims for liabilities. However, a letter from the

City's insurance carrier (see Appendix K) indicates that in the event of an incident caused by a paramedic, the City would be named as a defendant and could conceivably be held if there was any negligence whatever. Furthermore, the letter states that, "...the cost of defense in Malpractice Claims is the most expensive in the industry." In short, the issue of liability is an important one to consider in the provision of paramedic services.

FOOTNOTES

FOOTNOTES

1. Los Angeles County Medical Association, Bulletin, July 20, 1972.
2. Paramedic Services Report, City of Burbank, January, 1974, page 16.
3. Paramedic Feasibility Study, County of Ventura, January, 1975, pages 29-30
4. Long Beach Emergency Mobile Care System, Data Collection and Analysis Report, July 1, 1973—June 30, 1974, pages 2-8.
5. Ibid., pages 2-10.
6. Ibid., pages 5-1 and 5-2.
7. Paramedic Feasibility Study, County of Ventura, January, 1975, page 1.
8. Figures provided by San Joaquin Hospital for months of January, February, and March, 1975.
9. Colonel Gaylor Ailshie, Director, Paramedics Division, Department of Health Services, Los Angeles County.
10. Ibid., by phone 3/19/75.
11. Paramedic Services Report, City of Burbank, January, 1974, page 23.
12. Letter to Bakersfield City Council from Joe B. Hurst, Administrator, San Joaquin Community Hospital, January 27, 1975.
13. Ibid.
14. State of California, Vehicle Code, 1973, Section 165.5.

APPENDICES

Appendix A

PARAMEDIC LEGISLATION

HEALTH—PARAMEDICS

CHAPTER 1188

SENATE BILL NO. 772

An act to amend Sections 1480, 1481, 1481.1, 1481.2, 1481.3, 1482, 1484, and 1485 of, and to add Sections 1480.1, 1484.1, 1484.2, 1484.3, and 1484.4 to, the Health and Safety Code, relating to paramedics.

LEGISLATIVE COUNSEL'S DIGEST

Authorizes any general acute care hospital operated by, or contracting with, a county until July 1, 1976, to conduct a pilot program to provide services utilizing mobile intensive care paramedics for the delivery of emergency medical care to the sick and injured at the scene of an emergency, during transport to a general acute care hospital, while in the general acute care hospital emergency department, until care responsibility is assumed by the regular staff of the general acute care hospital, and during training within the facilities of the sponsoring general acute care hospital.

Requires training for mobile intensive care paramedics to be conducted in a community college, college, university, or hospital having a certificate of approval for its curriculum and training from the county health officer in which it is located.

Revises provisions re county pilot programs for mobile intensive care paramedics training and utilization and extends termination date for the Wedworth-Townsend Paramedic Act from the 91st day after final adjournment of the 1974 Regular Session to July 1, 1976.

Revises definition of term mobile intensive care paramedics to require, among other things, that personnel pass performance and written examinations for certification.

Revises definitions for the terms "mobile intensive care nurse" and defines the terms "mobile intensive care units" and "emergency department."

Requires a training program for mobile intensive care paramedics to have a minimum of 200 hours of didactic training, of 100 hours of clinical experience, and a field internship period of at least 200 hours, rather than a minimum of 290 hours of training, including, but not limited to, didactic and clinical experience in a cardiac care unit and in an emergency vehicle unit. Authorizes the county health officer of the county giving certification to waive all or any portion of the training program if the applicant passes the performance and written examinations or the appropriate portion of the examination for certification.

Requires mobile intensive care paramedics to be continuously supervised by a physician or registered nurse during the clinical internship portion of the training program.

Revises enumerated services, including assisting in childbirth, that may be performed by mobile intensive care paramedics and authorizes mobile intensive care paramedics trainees to perform such enumerated services during the field internship portion of the training program if they are supervised and accompanied by a certified mobile intensive care paramedic, physician, or mobile intensive care nurse.

Requires the State Department of Health to submit a comprehensive report to the Legislature, on or before July 1, 1975, with specific recommendations regarding emergency medical services, after soliciting the advice and recommendations of the Advisory Committee on Emergency Medical Services.

Requires the county health officer to establish criteria necessary to maintain certification as a mobile intensive care paramedic or mobile intensive care nurse including, but not limited to, prescribed criteria.

Prohibits any public or private agency from advertising or disseminating information to the public that the agency provides paramedic rescue or paramedic ambulance service unless the agency provides mobile intensive care units which operate on a continuous 24-hour-per-day basis and restricts such advertising or information appearing on vehicles to those vehicles utilized solely to provide such service on a continuous 24-hour-per-day basis.

Makes it a misdemeanor for ambulance personnel to impersonate or refer to themselves as paramedics unless the person has been certified as a mobile intensive care paramedic and currently maintains that certification.

Provides that, notwithstanding Section 2231 of the Revenue and Taxation Code, no appropriation is made nor any obligation created for reimbursement of any local agency for any costs incurred by it pursuant to this act because of a specified reason.

The people of the State of California do enact as follows:

SECTION 1. Section 1480 of the Health and Safety Code is amended to read: 1480.

Any general acute care hospital operated by, or contracting with, a county may conduct a pilot program which provides services utilizing mobile intensive care paramedics for the delivery of emergency medical care to the sick and injured at the scene of an emergency, during transport to a general acute care hospital, while in the emergency department of the general acute care hospital until care responsibility is assumed by the regular staff of the general acute care hospital, and during training within the facilities of the sponsoring general acute care hospital.

SEC. 2. Section 1480.1 is added to the Health and Safety Code, to read: 1480.1

The training of mobile intensive care paramedics may only be conducted by a community college, college, university, or hospital that has a certificate of approval for its curriculum and training program from the county health officer of the county in which it is located.

SEC. 3. Section 1481 of the Health and Safety Code is amended to read: 1481.

As used in this article:

(a) "Mobile intensive care paramedics" means personnel who have been trained in the provision of emergency cardiac and noncardiac care in a training program certified by the county health officer * * * of the county giving certification or a certified training program in another county that has been evaluated and approved by the county health officer of the county giving certification, and who pass the performance and written examinations required for certification by the officer as qualified to render the services enumerated in this article in the county giving such certification.

(b) * * * "Mobile intensive care nurse" means a registered nurse who has been certified by a county health officer * * * as qualified in the provision of emergency cardiac care and noncardiac care and the issuance of emergency instruction to mobile intensive care paramedics.

(c) "Mobile intensive care units" means any emergency vehicles staffed by mobile intensive care paramedics or mobile intensive care nurses and equipped to provide remote intensive care or cardiac care to the sick or injured at the scene of medical emergencies or during transport to general acute care hospitals.

(d) "Emergency department" means any department or separate area within a general acute care hospital which is staffed and equipped to provide emergency medical care to the sick or injured.

SEC. 4. Section 1481.1 of the Health and Safety Code is amended to read:

1481.1

The training program * * * for mobile intensive care paramedics shall consist of a minimum of * * * 200 hours of didactic training * * *, a minimum of 100 hours of clinical experience, and * * * a field internship of at least 200 hours.

However, all or any portion of the required training program for a mobile intensive care paramedic may be waived by the county health officer of the county giving certification if the applicant passes the performance and written examinations required for certification or the appropriate portion of the performance examination.

SEC. 5. Section 1481.2 of the Health and Safety Code is amended to read:

1481.2

Each county conducting a pilot program pursuant to this article shall submit * * * an annual report to the Legislature and to the State Department of Health, not later than * * * January 31 of each calendar * * * year, evaluating any such pilot program conducted at any general acute care hospital operated by the county or under contract with the county. The report shall include an evaluation of the competency and effectiveness of the performance by the mobile intensive care paramedics in their duties in staffing rescue units and in the rendering of medical and nursing care pursuant to this article. The report may include recommendations relating to the extension or modification of the provisions of this article.

SEC. 6. Section 1481.3 of the Health and Safety Code is amended to read:

1481.3

Any county conducting a pilot program under this article may provide courses of instruction and training leading to certification as a mobile intensive care paramedic. Where such instruction and training is provided to public employees other than employees of the county or employees of a fire protection district within the county, a fee may be charged sufficient to defray the cost of such instruction and training. Where such instruction and training is provided to any other persons such fee shall be charged. However, such fee may be reduced to the extent of any federal funds obtained by the county for the purpose of providing such instruction and training.

SEC. 7. Section 1482 of the Health and Safety Code is amended to read:

1482.

Notwithstanding any other provision of law mobile intensive care paramedics may do any of the following:

- (1) Render rescue, first aid and resuscitation services.
- (2) Perform cardiopulmonary resuscitation and defibrillation * * *.
- (3) During training * * * and while caring for patients in the sponsor general acute care hospital under the direct supervision of a physician or registered nurse * * *, or while at the scene of a medical emergency where voice contact or a telemetered electrocardiogram is monitored by a physician or a certified mobile intensive care nurse where authorized by a physician, and where direct communication is maintained, * * * upon order of such physician or such nurse:
 - (a) Administer intravenous saline, glucose or volume expanding agents or solutions.
 - (b) Perform gastric suction by intubation.
 - (c) Perform pulmonary ventilation by use of esophageal airway.
 - (d) Obtain blood for laboratory analysis.
 - (e) Apply rotating tourniquets.
 - (f) Administer parenterally, orally or topically any of the following classes of drugs or solutions:
 - (i) Antiarrhythmic agents.
 - (ii) Vagolytic agents.
 - (iii) Chronotropic agents.
 - (iv) Analgesic agents.
 - (v) Alkalinizing agents.
 - (vi) Vasopressor agents.
 - (vii) Narcotic antagonists.
 - (viii) Diuretics.
 - (ix) Anticonvulsants.
 - (x) Ophthalmic * * * agents.

(xi) * * * Oxytocic agents.

(xii) Antihistaminics.

(xiii) Bronchodilators.

(xiv) Emetics.

(g) Assist in childbirth.

SEC. 8. Section 1484 of the Health and Safety Code is amended to read:
1484.

(a) This article shall remain in effect only until * * * July 1, 1976, and shall have no force or effect after that date.

(b) On or before July 1, 1975, the State Department of Health shall submit to the Legislature a comprehensive report on emergency medical services in California. Such report shall include a thorough review and evaluation of the mobile intensive care paramedic pilot program authorized by this article and shall make specific recommendations on the following:

(1) Development of statewide coordination of emergency medical service systems, including appropriate communications systems and equipment;

(2) Development of manpower certification standards for all types of emergency medical service personnel to include specifically the training and scope of practice requirements for the categories of ambulance personnel (E.M.T. I) and paramedics (E.M.T. II);

(3) Standards for local paramedic programs including location, qualifications for appropriate teaching institutions, performance standards, and the curriculum necessary for state accreditation of the local program; and

(4) Standards for the staffing and equipping of hospital emergency rooms.

(c) In developing such report, the department shall solicit the advice and recommendations of the Advisory Committee on Emergency Medical Services.

SEC. 9. Section 1484.1 is added to the Health and Safety Code, to read:
1484.1

During the clinical internship portion of the training program specified in Section 1481.1, mobile intensive care paramedic interns shall be supervised continuously by a physician or registered nurse.

During the field internship portion of the training program specified in Section 1481.1, mobile intensive care paramedic trainees may perform all the services enumerated in this article, provided that they are supervised and accompanied by a certified mobile intensive care paramedic, a physician, or a mobile intensive care nurse.

SEC. 10. Section 1484.2 is added to the Health and Safety Code, to read:
1484.2

The county health officer shall establish criteria necessary to maintain certification as a mobile intensive care paramedic or a mobile intensive care nurse including, but not limited to:

(a) A formal program of continuing education.

(b) Continuous service as a mobile intensive care paramedic or a certified mobile intensive care nurse.

(c) Retesting at two-year intervals, which shall include a performance examination and may include written examinations and oral examinations.

SEC. 11. Section 1484.3 is added to the Health and Safety Code, to read:
1484.3

No agency, public or private, shall advertise or disseminate information to the public that the agency provides paramedic rescue or paramedic ambulance service unless that agency does, in fact, provide mobile intensive care units on a continuous 24-hours-per-day basis. If advertising or information regarding the agency's paramedic rescue or paramedic ambulance service appears on any vehicle it may only appear on those mobile intensive care-unit vehicles utilized solely to provide service on a continuous 24-hours-per-day basis.

SEC. 12. Section 1484.4 is added to the Health and Safety Code, to read:

1484.4

It shall be a misdemeanor for ambulance personnel to impersonate or refer to themselves as paramedics unless the person has been certified as a mobile intensive care paramedic and currently maintains that certification.

SEC. 13. Section 1485 of the Health and Safety Code is amended to read:

1485.

This article shall be known and may be cited as the Wedworth-Townsend Paramedic Act. It is the intent of this article to respond to the critical shortage of professionally trained medical and nursing personnel for the fast, efficient medical care of the sick or injured at the scene of a medical emergency, during transport to a general acute care hospital, and in the emergency department of the general acute care hospital until care responsibility is assumed by the regular staff of the general acute care hospital. Improved emergency medical service is required to reduce the mortality and morbidity rates during the initial treatment phases of the onset of an acute illness or following an accident. Within the goals of this act is the provision of the best and most efficient and economical delivery of emergency medical care.

SEC. 14. Notwithstanding Section 2231 of the Revenue and Taxation Code, no appropriation is made by this act nor any obligation created for the reimbursement of any local agency for any costs incurred because the legislation was requested by a local agency and any additional duties will be covered by normal operating costs.

Approved and filed Sept. 23, 1974.

Appendix B

PARAMEDIC COURSE CONTENT

BAKERSFIELD COLLEGE

EMERGENCY MEDICAL TECHNICIAN IIa-h -- Advanced Emergency Care

Catalog Description: Emergency Medical Technician IIa-h -- Advanced Emergency Care. (12 units) This is the second phase of emergency care training. Two hundred hours of didactic material in advanced emergency techniques and procedures.

Prerequisites: EMT I Certificate or equivalent and instructor's permission.

Description for Counselor's Handbook: EMT IIa-h is a series of indepth courses in advanced emergency care and related areas for the person interested in becoming a certified paramedic. Successful completion of EMT IIa-h and EMT IIIa-b will satisfy State requirements for paramedic training.

Textbooks: To be selected.

Course Objectives:

1. To give the student advanced skills to provide safe patient care in an emergency.
2. To develop student skills in diagnosis and treatment within the limits of his skills and authority.
3. To develop skills in the use of CPR, drugs, and defibrillation techniques.
4. To understand the use of telemetry and communication equipment.

Means of Achieving Course Objectives:

1. Formal classroom lectures and demonstrations.
2. Physician lectures.
3. Films and filmstrips.

System of Measurement & Evaluation:

1. Periodic quizzes. Midterm & Final examinations.
2. Practical examinations on emergency techniques.

Course Outline: (Summary)

EMT IIa --Introduction & Basic Anatomy/Physiology	-- 2 units	-- 36 hours
EMT IIb --Basic Medical Terminology	-- 1 unit	-- 16 hours
EMT IIc --Basic Pharmacology (ER Drugs)	-- 1 unit	-- 16 hours
EMT IId --Coronary/Critical Care	-- 3 units	-- 48 hours
EMT IIe --Special Techniques (IVs/CPR/Defib/O ₂ / suctioning/rotating tourniquets/airways)	-- 2 units	-- 36 hours
EMT II f --Emergency Childbirth/Aseptic Tech.	-- 1 unit	-- 16 hours
EMT IIg --Telemetry & Radio Communications	-- 1 unit	-- 16 hours
EMT IIh --Emergency Extrication	-- 1 unit	-- 16 hours
Total	--12 units	--200 hours

NOTE: Certain courses are also open to anyone interested in health. Students wishing to continue into EMT III a-h must take all of the EMT II courses. Open courses are E.M.T. IIa, b, c, d, and f; all other E.M.T. II courses are limited to students majoring in E.M.T. training.

Course Outline EMT II

A. Basic Anatomy & Physiology (36 hrs) (2 units)

1. Overview of Human Anatomy
2. Skeletal System & Joints
3. Muscular System
4. Nervous System
5. Circulatory System
6. Respiratory System
7. Digestive System
8. Genitourinary System
9. Endocrine System
10. Integumentary System

B. Basic Medical Terminology (16 hrs) (1 unit)

1. Overview of Medical Terms
 - a. Roots, Suffixes, Prefixes
 - b. Pronunciation rules
 - c. Spelling rules
 - d. Medical Specialties
 - e. Abbreviations & Symbols
2. Terms related to the
 - a. Skeletal System
 - b. Muscular System
 - c. Nervous System
 - d. Circulatory System
 - e. Respiratory System
 - f. Genitourinary System
 - g. Endocrine System
 - h. Integumentary System

C. Basic Pharmacology (ER Drugs) (16 hrs) (1 unit)

1. Arithmetic Review
2. Drug Dosage Calculations
3. Administration of Drugs
4. General Drug Classifications
5. Drugs used in Emergency Care
 - a. Antiarrhythmic agents
 - b. Vagolytic agents
 - c. Chronotropic agents
 - d. Analgesic agents
 - e. Vasopressor agents
 - f. Narcotic antagonists
 - g. Narcotics
 - h. Diuretics
 - i. Anticonvulsants
 - j. Ophthalmic agents
 - k. Oxytocic agents
 - l. Antihistaminics
 - m. Bronchodilators
 - n. Emetics

D. Coronary Care / Critical Care (48 hrs) (3 units)

1. Heart Disorders
 - a. Normal heart
 - b. Abnormal heart
 - c. Signs & Symptoms of Heart Problems
 1. Coronary Heart Disease
 2. Cardiogenic shock
 3. Congestive heart failure
 4. Angina pectoris
 - d. Introduction to ECG
 - e. Arrhythmia Recognition & Treatment
 - f. Review of cardiovascular drugs
2. Critical Care Topics
 - a. Neurological Emergencies (Head Injury, spinal cord, stroke)
 - b. Burns
 - c. Respiratory Emergencies
 - d. Renal Emergencies
 - e. Pediatric Emergencies
 - f. Orthopedic Emergencies

E. Special Emergency Techniques (36 hrs) (2 units)

1. Venipuncture & IVs
2. Nasogastric Intubation
3. Rotating tourniquets
4. Tracheal suction
5. CPR & Defibrillation
6. Oxygen therapy & Airways
7. Use of ventilation equipment
8. Use & maintenance of emergency equipment

F. Emergency Childbirth & Aseptic Techniques (16 hrs) (1 unit)

1. Emergency Childbirth
 - a. Anatomy review of the pregnant female
 - b. Normal delivery procedures
 - c. Complications of pregnancy & childbirth
2. Aseptic Techniques
 - a. The microscopic enemy
 - b. Asepsis
 - c. Practical Ways of Controlling the Spread of Infection

G. Telemetry & Radio Communication (16 hrs) (1 unit)

1. Equipment Operations
2. Types of Equipment
3. Trouble shooting

H. Emergency Extrication (16 hrs) (1 unit)

1. Rescue skills & techniques
2. Rescue tools & equipment
3. Rescue incidents & Problems
4. Special Rescue techniques

EMERGENCY MEDICAL TECHNICIAN IIIa-b -- Hospital Clinical & Field Experience

Catalog Description: EMT IIIa -- Hospital Clinical Experience (2 units). 120 hours of hospital clinical experience in O.R., E.R., & OB/ICU/CCU. Acquaints the student with the correct techniques for emergency care needed by different types of patients in the hospital setting.

EMT IIIb -- Field Clinical Experience (4 units). 200 hours of field ambulance experience. Acquaints the student with the correct care of emergency patients in the field.

Prerequisites: EMT IIIa -- Enrollment in EMT IIa-h. & instructor's permission.
EMT IIIb -- Successful completion of EMT IIa-h & EMT IIIa.

Description for Counselor's Handbook: This is an indepth course providing both hospital and field clinical experiences in emergency medical care techniques. Successful completion of both segments will entitle the student to certification as an emergency care paramedic. This course meets the State requirements for certification.

Textbooks: None.

Course Objectives:

1. To provide supervised experiences in both hospital and field emergencies.
2. To give the student to apply didactic materials to the actual situation.

Means of Achieving Course Objectives:

1. Supervised clinical experience in the hospital and in the field settings.
2. Physician lectures.

System of Measurement & evaluation:

1. Individual & small group critiques of clinical experiences.
2. Oral & written quizzes on correct emergency techniques.
3. Written evaluations by clinical supervisors.

Course Outline:

EMT IIIA --	O.R. -----	40 hours
	E.R. -----	40 hours
	OB/ICU/CCU -----	40 hours
		<u>120 hours</u>

EMT IIIB -- 200 hours of ambulance field experience.

Appendix C

SUGGESTED CRITERIA FOR BASE HOSPITALS

CRITERIA FOR BASE STATION HOSPITALS

A hospital wishing to be considered for a base station hospital should have 24-hour physician coverage in the Emergency Room. In addition, a hospital should:

1. Have an approved active Cardiac Care Unit and/or Intensive Care Unit of at least four beds.
2. Have approval of both administrative and medical staffs of the hospital.
3. Appoint a physician to act as medical-project liaison officer.
4. Appoint a nurse to act as liaison officer between paramedics and the hospital.
5. Provide a continuing education program for certified paramedics (minimum of four hours per month).
6. Have sufficient number of certified Mobile Intensive Care nurses to act when a physician is not available.
7. Procure necessary base station equipment and provide and resupply Mobile Intensive Care Units with medications and supplies used in the field.
8. Cooperate with the Los Angeles County Department of Health Services in gathering of statistical data from Mobile Intensive Care Units.
9. Provide clinical experience with supervision for trainees during the training program.
10. Provide orientation regarding Mobile Intensive Care Unit project to all employees at the hospital.
11. Provide for critiquing of responses on a regular basis with paramedics, Mobile Intensive Care nurses, and physicians to improve field operations.
12. Ensure that the Emergency Room physician shall be available and willing for consultative help to the Mobile Intensive Care nurse.
13. Failure to comply with any of the above provisions shall result in action by the Paramedic Committee of the County of Los Angeles to review the desirability of continuation of that hospital as a base station.
14. HAVE MONTHLY BASE STATION MEETINGS TO INCLUDE BASE STATION STAFF AND PARAMEDIC STAFF.

Note: The criteria presented here is the criteria for Los Angeles County. Kern County is currently involved in a pilot program which is not yet fully developed. The County Health Department feels, however, that as its program matures, this type of criteria would be followed.

Appendix D

PARAMEDIC EQUIPMENT INVENTORY

DRUG LIST

1. Ammonia Inhalants
2. Atropine Sulfate 1mg/10ml.
3. Bacitracin Ung., Ophth.
4. Benzoin, Tr.(Liquid)
5. Dextrose 25Gm./50ml.(50%)
6. Epinephrine 1:10,000(prefilled syringe)
7. Epinephrine 1:000 (ampoule)
8. Glucose Solution(Glucotol) 100Gm./12 oz.
9. Lidocaine 1%, 100mg./10ml.
10. Lidocaine 4%, 1Gm./25 ml.
11. Metaraminol(Aramine) 100mg./10ml.
12. Methylergonovine(Methergine) 0.2mg./ml.
13. Morphine Sulfate 10mg./ml.
14. Naloxone (Narcan) 0.4mg./ml.
15. Nitroglycerine Tablets 0.4 mg.(gr. 1/150)
16. Sodium Bicarbonate 3.75 Gm.(44.6mEq.)
or 50 mEq./50ml.
17. Sodium Bicarbonate 1 mEq./ml., 20ml.
18. Dopram 20 mg./ml.
19. Ephedrine amps. 50 mg./ml.
20. Meperidine tubex 50 mg./ml.
21. Valium 2cc amp.

Approved - by Paramedic Advisory Board
Nov. 12, 1974

I.V. SOLUTION LIST

1. 5% G/W--500cc
250cc
2. 5% G/0.45NaCl--500cc
250cc
3. 5% G/Lact. Ringers--500cc
4. Lactated Ringers--500cc
5. Sodium Chloride 0.45%--500cc
6. Serum Albumin, Normal--500cc

I.V. TUBING LIST

1. Solution Administration Set(Macro-Drip)
10-15 gtts./ml. (Abbott)
2. Solution Administration Set(Micro-Drip)
60 gtts./ml. (Abbott)

Approved by Paramedic Advisory Board
November 12, 1974

NON-EXPENDABLE MEDICAL SUPPLIES

1. Adapter, Universal
2. Airway Set, Esophageal
3. Airway Set, Esophageal, Replacement Tubes
4. Board, Long Back
5. Board, Short Spine, with torso straps
6. Board, with head and chin straps
7. Board, with neck roll
8. Book, Drug Identification Guide
9. Book, Physician's Desk Reference
10. Cervical Collar, Firm, Foam
 Sizes Small, Medium, Large
11. Choke-Saver
12. Destrucclip(For Destroying Syringes and Needles)
13. Electode Wire, Red, Green, Black, and White(Replacments)
14. Intubation Set, Laerdal, Complete with handle
15. Intubation Set--Blades--Miller-Smallest up through #2,
 Wissforegger-#2 and #3, MacIntosh #3
16. Mask, Rendell Baker--Sizes 1,2, and 3(Infant)
17. Mask, Replacement pieces--none needed for #16.
18. Mask, Puritan-Bennett
 Small Adult, Medium Adult, and Large Adult
19. Mask, Replacement Pieces for #18
20. Oxygen Tank, E-Size on Hand Wheel cart
21. Resuscitator, Hope, Pediatric with Safety Release
 Valve without Carrying Case
22. Resuscitator, Laerdal, Folding Bag II or with PMR Bag,
 Adult Size with Carrying Case with Large Benefit Mask

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November 12, 1974

NON-EXPENDABLE MEDICAL SUPPLIES

PAGE 2

23. Sandbags, #3 and #5
24. Scissor and Light Kit
25. Splint, Green, Extrication, Back
26. Stethoscope, B-D with 18" Tubing
27. Sphygmomanometer, Tycos, Complete
Adult Arm (Small, medium and large cuffs) Equipped
with adapters
28. Sphygmomanometer, Tycos, Complete
Pediatric with 2" Cuff
29. Copper Stylets (For Intubation Tubes)
with stoppers
30. Penrose Drains for Tourniquets

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November 12, 1974

EXPENDABLE MEDICAL SUPPLIES

1. Airway, Berman, Oral(Lg. Adult, Med Adult, Child and Infant)
2. Airway, Plastic Tongue Depressor
3. Airway, Resusitube(Adult, Child, Infant)
4. Applicators, Cotton, Sterile
5. Alcohol Sponges
6. Bandage, Band-aids 1" x 3", 2" x 4"
7. Bandage, Coban Elastic 4"
8. Bandage, Steri-Strip 1/4" x 4"
9. Basin, Emesis, Disp.
10. Boards, Arm for I.V.'s, Long and short
11. Catheter, I.V. Placement (Medicuts/Abbocaths) #18, #20 Gauge
12. Catheter, Suction, Bard-Parker with Demand Port, Plastic
#8 Fr., #10 Fr., and #16 Fr.
13. Dressing, Abd. Pads, 7½" x 8"(sterile)
14. Dressing, Eye Pad, oval(sterile)
15. Dressing, 4" Kling(non-sterile)
16. Dressing, 2" x 2" sponges(sterile)
17. Dressing 4" x 3" sponges(sterile)
18. Dressing, Telfa 8" x 3"(sterile)
19. Electrode, Gel
20. Electrode, Monitoring
21. Endotracheal Tubes: Sizes 14-28Fr.(3-6½) with cuffs, Foregger-Murphy; Sizes 7,8, and 9, Adult, Foregger-Murphy
22. Gloves, Sterile
23. Needles, Scalp Vein, Butterfly Infusion #21, #19
24. Needles, #20 Gauge-1"

*Approved by Paramedic Advisory Board
November 12, 1974*

EXPENDABLE MEDICAL SUPPLIES

PAGE 2

25. Obstetrical Pack
26. Oxygen Cannula, Nasal Prong
27. Oxygen Connecting Tubing
28. Oxygen Mask, Adult and Pediatric
29. Cold Packs
30. Safety Pins, Large #3
31. Sponges, Tri-Ring for Hare Traction Splint
32. Syringes, Insulin, 3cc
33. Syringes, 60cc--Catheter tip
34. Tape, Adhesive--1", 2"
35. Tape, Non-allergenic, Johnson and Johnson 1"
36. Tubing, Suction
37. Urinal, Plastic
38. Vacutainers, Lavender Top, Oxylated
39. Vacutainers, Red Top, Clotted
40. Solution, Normal Saline, Irrigation--1000cc
41. Salem Sumps--#12-children, #18-adult

Approved by Paramedic Advisory Board
November 12, 1974

FIXED ASSETS

1. Telemetry and Communication Equipment, as specified below:
C.O.R. Radio, Extra Battery, fuses and extra cables
2. Oscilloscope/Defibrillator: AmbuPak--Motorola
3. Pediatric Defibrillator Paddles
4. Extra Batteries, if required
5. Hare Traction Splint
6. Stretcher, collapsible scoop
7. Air Splints
8. 3-Size E O₂ Tanks (One portable, one with Laerdal and one for standby). Quick release racks will be necessary.
9. Portable suction--Twin-O-Vac by William T. Farley Co.

Approved by Paramedic Advisory Board
November 12, 1974

MISCELLANEOUS

1. Ziplock Bags
2. Marking Pens
3. Lollipops for Peds. Trauma Box
4. Wire Cutter
5. Bottle Opener for Glucotol
6. Paper bags for trash
7. Cotton, Soft restraints for back board
8. Assorted Tool Boxes and Containers

Approved by Paramedic Advisory Board
November 12, 1974

Appendix E

LOS ANGELES CITY AMBULANCE RATES

BOARD ORDER NO. 279
BOARD OF PUBLIC UTILITIES AND TRANSPORTATION
CITY OF LOS ANGELES

WHEREAS, the Los Angeles County Ambulance Association has applied for authority to increase private ambulance rates; and

WHEREAS, after considering evidence presented at a public hearing, the Board has determined that changes in private ambulance rates are justified; and

WHEREAS, the Board has found and determined the following rate schedule and conditions to be just, reasonable, nondiscriminatory and nonpreferential;

NOW, THEREFORE, BE IT RESOLVED, that Board Order No. 248 establishing rates to be charged by operators of private ambulance service, be and the same is hereby rescinded, and the following rate schedule and conditions, except those authorized by Board Order No. 216 which remains effective, are hereby fixed and established as the legal rates to be charged by all operators of private ambulance service in the City of Los Angeles:

Base Rate

Response to call..... \$40.00

Mileage Rate

Each 1/3 mile or fraction thereof..... \$.50

Time Rate

Waiting Time: Elapsed time other than standby time necessitated by conditions beyond control of the operator at the loading and/or discharge points.

For each 15-minute period or major fraction thereof after an initial 10-minute period..... \$ 6.25

Standby Time: Elapsed time an ambulance is hired to stand at a particular location for service as needed and where such standby service is arranged for at least twenty-four (24) hours in advance.

Minimum charge, including the first two hours or fraction thereof..... \$30.00

Each succeeding 15-minute period or major fraction thereof..... \$ 3.75

Special Charges

- a. Each patient provided service after 7:00 p.m. and before 7:00 a.m. shall pay an additional charge of..... \$ 5.00
- b. Individuals requiring oxygen shall be subject to an additional charge of..... \$ 5.00
- c. Cases requiring special handling shall be subject to an additional maximum charge of..... \$ 5.00
- d. Where other special services are requested by patient or authorized representatives, a reasonable charge commensurate with the cost of furnishing such special service may be made, provided that each permitted ambulance operator shall file with the Board a schedule of each special service proposed and the charge therefor; the schedule shall become effective unless modified or restricted by the Board; these special charges shall be itemized on each bill and statement rendered by the permittee. No special charge shall be made other than those filed with the Board.

Additional Patients

- a. Fifty percent of the "Base Rate" and "Mileage Rate" for one patient shall be added for each additional patient. "Special Charges" shall be made as required.
- b. For group loads from same origin to same destination, total charges other than "Special Charges" shall be divided equally among the patients.

Reduced Rates

Rates 25 percent less than herein established shall be charged for ambulance service by any operator upon requisition stating the patient's name, and inability to pay established rates and signed by the attending physician, social worker, or authorized representative of hospital, charitable institution or clinic. Said requisitions, together with a record of charges computed under approved rates and charges actually made, shall be kept available and open for inspection at all times by representatives of the Board of Public Utilities and Transportation.

Rebates

It shall be unlawful for any ambulance operator to give directly or indirectly, or cause to be given, any rebates, commissions, reserve rebates, or any reduced rates or cash discounts to any person, or persons, or groups of any nature, except as provided herein.

Total Charge

Non-Standby Service: The total charge shall be the sum of the appropriate "Base Rate" plus the "Mileage Rate" applied to the distance actually traveled with patient or patients, plus the "Time Rate" applied to requested or necessary waiting time, plus any "Special Charges" which apply. All rates are to be computed from the time the ambulance arrives for hire until the ambulance is discharged by the patient or his authorized representative.

Standby Service: The total charge per ambulance shall be the sum of the appropriate "Standby Time Rate" applied to the requested standby time, plus any "Special Charges" applied to any special services provided by the operator and requested by the person or organization hiring standby service. The "Standby Time Rate" shall be computed from the time the ambulance arrives at the requested location or the time standby service was requested to commence, whichever is later, until the time the ambulance leaves the standby location, with or without a patient, or until the ambulance is discharged by an authorized representative of the person or organization requesting standby service, whichever occurs first. In the event the ambulance is required to leave the standby location and returns to complete the assignment at a later time, the minimum charge shall not apply to the later time.

If another ambulance is required to report because of transportation of a patient, the standby charge shall not be interrupted. A second minimum charge shall not be made.

The charge for transportation of a patient shall be separate from and in addition to the standby service charge.

Statement on Bills

Each bill for service rendered given to the customer shall contain a statement that complaints may be referred to the Department of Public Utilities and Transportation, 1600 City Hall, Los Angeles, CA 90012, Telephone No. 485-2751.

Dated at Los Angeles, California, this 24th day of October 1974.

BY ORDER OF THE BOARD.

ATTEST

Ruth E. Ginn, Secretary
Board of Public Utilities
and Transportation
City of Los Angeles

I HEREBY CERTIFY THAT the foregoing Resolution was tentatively adopted by the Board of Public Utilities and Transportation at its meeting held October 16, 1974, and, no objection having been received pursuant to notice given, said Resolution being designated as Board Order No. 279, was finally adopted by said Board at its meeting of October 24, 1974.

Dated at Los Angeles, California, this 24th day of October 1974.

ATTEST

Ruth E. Ginn, Secretary
Board of Public Utilities
and Transportation
City of Los Angeles

The following special charges were approved by the Board of Public Utilities and Transportation on April 12, 1973 in accordance with paragraph (d) of the rate order:

Billing parties other than the customer	\$ 5.00
EKG Oscilloscope	\$15.00
Defibulator	\$15.00
Telemetry	\$25.00
Intensive Care Incubator	\$25.00
Bird Mark 10, or equivalent IPPB Apparatus	\$10.00/hour
Heart Lung Resuscitator	\$12.50/15 minutes
Drugs and medical supplies	Replacement cost to the company

Appendix F

LIST OF INDIVIDUALS CONTACTED DURING STUDY

LIST OF INDIVIDUALS CONTACTED DURING STUDY

Joseph Hurst
Administrator
San Joaquin Community Hospital

Louise Putnam
Director of Training
San Joaquin Community Hospital

Joseph Hummel
Administrator
Kern Medical Center

Larry Carr
Administrator
Greater Bakersfield Memorial Hospital

Tom McGovern
Administrator
Mercy Hospital

Marty Dale
Executive Director
Kern County Medical Society

Dr. James Barnard
Chairman, Kern County Emergency
Medical Care Committee

Tom Folsom
Interim Staff, Kern County Emergency
Medical Care Committee

Harvey Hall
Hall Ambulance Service

James Flinn
Flinn Ambulance Service

Steve Hoos
County Administrator's Office

Cal Haggard
Fire Chief
Bakersfield Fire Department

Dr. Willard B. Christiansen
Private Physician

Fire Department Personnel who participated in San Joaquin
Hospital Paramedic Training Program

Appendix G

HOSPITAL EMERGENCY SERVICES
CHECK LIST

		X	X						X		X	
	WA	DCH	KGH	KVH	PH	TH	BCH	GBMH	MH	RCH	SJCH	WSDH
1. Trauma staff & physician on premises 24 hours	No	Yes	Yes	No	No	No	Week ends	Yes	Yes	No	Yes	No
2. Physician or physicians on call	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
3. R.N. assigned 24 hours - specially trained	Available	Available	Yes	Yes	Yes	Yes	Available	Yes	Yes	No	Yes	Available
4. LVN in attendance - specially trained	No	No	Yes	Yes	Yes	No	No	Yes	Yes	No	Yes	No
5. Laboratory & X-Ray service 24 hours	On call	On call	Yes	Yes	On call	On call	On call	Yes	Yes	Yes	Yes	On call
6. Special designated poison control officer	No	Yes	Yes	No	No	No	No	No	Yes	Yes	Yes	Yes
7. Poison chart on file and location & phone no. of nearest poison control center available	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
8. Re above: special personnel available to maintain indexed info.	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
9. Policy manual on above info available to ER staff	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

X = 24 hour emergency service - physician on duty

	WA	DCH	KCH	KVH	PH	TH	BCH	GBMH	MH	RCH	SJCH	WSDH
10. Following equipment availability:												
-Airway control & vent. equipment	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
-Suction devices	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
-Cardiac monitor - defib.	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
-Pacemakers	No	Yes	Yes	No	Yes	No	No	Yes	Yes	Yes	Yes	Yes
-Apparatus for central venous pressure monitor	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	No	Yes	Yes
-Intrav. fluids & admin. devices, inc. blood exp.	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
-Sterile surg. sets	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
-Gastric lavage equip.	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
-Approp. drugs & suppl.	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
-Blood pressure appr.	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
11. Patient-visitor wait-room area separate from ER area	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
12. Isolation area	Yes	Yes	Yes	No	Yes	Yes	Yes	No	Yes	No	Yes	Yes
13. Readily available services of blood bank	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
14. Operating rooms ready & promptly available	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
15. Anesthesiologist or nurse anesthesiologist:												
-on call 24 hours	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
-on premises 24 hours	-	-	Yes	-	-	-	-	Yes	Yes	No	Yes	-
16. Post-op recovery care rendered in a unit adjacent to Op. suite	No	Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
17. ICU available	No	DS	Yes	No	Yes	DS	Yes	Yes	Yes	Yes	Yes	Yes

	WA	DCH	KGH	KVH	PH	TH	BCH	GBMH	MH	RCH	SJCH	WSDH
18. Two-way communications:												
-Intra-hospital	No	No	No	No	No	No	No	Yes	No	No	No	No
-ER and ambulance	No	No	No	No	No	No	No	Yes	Yes	No	Yes	No
-Dispatchers	No	No	No	No	No	No	No	No	No	No	No	No
-Law enforcement	No	No	No	No	No	No	No	No	No	No	No	No
19. Manual of supporting community resources available	Yes	Yes	Yes	Yes	Yes	None Avail.	Yes	Yes	Yes	Yes	Yes	Yes
20. Emerg. unit committee represents major med services and hospital administration	Yes	Yes	Yes	No	No	No	Yes	Yes	Yes	No	Yes	No
21. Emerg. dept. has director:												
-on premises	No	Yes	Yes	No	No	No	Yes	Yes	Yes	No	Yes	No
-on call	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Yes	Yes	Yes
22. Emerg. unit director is a physician	Yes	Yes	Yes	No	No	No	Yes	Yes	Yes	Yes	Yes	No
23. Regular review of Medical records	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
24. Upon discharge, pat. is given post-emerg. instruction sheet	Yes	Yes	Yes	Yes	No	Verbal	Yes	Yes	Yes	Yes	Yes	Yes
25. Public information:												
-info. sheet posted	No	Yes	Yes	No	No	No	Yes	Yes	Yes	No	Yes	No
-Posted signs	No	Yes	Yes	Yes	No	No	Yes	Yes	Yes	No	Yes	No
-Verbal explanation	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	No	Yes	No
26. Anti-venom service	Yes	Yes	No	Yes	Drugs	Yes	Yes	Yes	Yes	Yes	Yes	Yes
27. Burn center	No	No	No	No	No	No	No	No	Unit	No	Yes	No

	WA	DCH	KGH	KVH	PH	TH	BCH	GBMH	MH	RCH	SJCH	WSDH
28. Communicable disease dept.	No	No	Yes	No	No	No	No	No	No	No	Yes	No
29. CCU - 24 hours	No	DS	Yes	No	Yes	No	Yes	Yes	Yes	Yes	Yes	No
30. Hemodialysis unit	No	No	No	No	No	No	No	No	Yes	No	No	No
31. Helicopter:												
-Licensed landing	No	No	No	No	No	No	No	No	No	Yes	Yes	No
-Marked landing	No	No	No	No	No	No	No	No	No	Yes	Yes	No
-Available access	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	-	No
32. Dept. for diagnosis, repair rehab of Nervous system	No	No	Yes	No	No	No	No	No	Yes	No	No	No
33. Organ bank	No	No	No	No	No	No	No	No	DS	No	No	No
34. Dept. for diagnosis, repair, rehab. of skeletal system	No	Yes	Yes	No	No	No	No	DS	Yes	Yes	On call	No
35. Emerg. out-pat. care for psych, cond. 24 hr.	Ref.	No	Yes	No	No	No	Ref.	No	Yes	On call	On call	No
36. Specific radiation plan for accident victims written form	No	No	No	No	Yes	No	Ref.	Yes	Yes	No	DS	No
37. Premature infant svcs.	Yes	No	Yes	Yes	No	Isol.	Isol.	Yes	Yes	Yes	No	Yes
38. Cardio-pulmonary center with bypass ability	No	No	Yes	No	No	No	No	No	Yes	No On call	Yes	No
39. Emerg. maternity care ut.	Yes	Yes	Yes	Yes	No	No	No	Yes	Yes	On call	No	Yes
40. Emerg. paramedic Svcs.	No	No	No	No	No	No	No	No	No	No	DS	No
41. Full-time trauma phy. admitted to Amer. Col. of Emerg. Phys. within 5 years	No	No	No	No	No	No	No	Yes	Yes	No	Yes	No

· HOSPITAL EMERGENCY SERVICES CHECKLIST

	WA	DCH	KGH	KVH	PH	TH	BCH	GBMH	MH	RCH	SJCH	WSDH
42. Total number of emergency patients treated from July 1, 1973 to June 30 1974.	3,142	New 9/1/74	48,182	2,079	N.A.	N.A.	1,513	6,172	17,469	5,400	15,996	2,857

¹Annual Report (1973-74) Kern County Emergency Medical Care Committee

Appendix H

CITY CONTACTS

PARAMEDIC PROGRAMS IN OTHER CITIES

Agency	How Long in Program	Number of Units/Personnel	Pressure for Expansion	Turnover/Retraining	Salary Differential	Who Transports	Who Pays for Medication	Staff Increase	Primary Responsibility	Population	Train on Duty	Charge for Service
Burbank	3 Mos.	1/9 (1)	(2)	-	No	Private	Hospital	No	Fire	88 K	Partial	No
Inglewood	5 Yrs.	3/21 (1)	(3)	(4)	7%	City and Private	(5)	No	Fire	90 K	Partial	No
Beverly Hills	3 Yrs.	1/9 (1)	Moderate	(4)	5.5%	(6)	(7)	No	Fire	34 K	Yes	Yes (6)
Long Beach	2½ Yrs.	4/36 (1)	(8)	(4)	\$50 Mo.	Private	(5)	No	Fire	359 K	Partial	No
Redondo Beach	4 Yrs.	2/16 (1)	Yes	(4)	6%	Private	(5)	No	Fire	56 K	-	No
Monrovia	2 Yrs.	1/9	No (9)	-	5%	Private	-	No	Fire	31 K	-	No
Torrance	2½ Yrs.	1/9	-	-	15%	Private	-	-	Fire	135 K	-	No
Pasadena	4 Yrs.	2/18	Yes (10)	(4)	No	City	City	Yes	Fire (11)	113 K	Overtime	-
Huntington Beach	2 Yrs.	1/9	Yes (10)	-	(12)	Private	-	-	Fire	116 K	-	-
Arcadia	2 Yrs.	1/9	-	-	5%	City	-	-	Fire	43 K	-	-
Santa Monica	2 Yrs.	3/21 (14)	Yes (14)	-	(15)	Private	(5)	No	Fire (16)	88 K	Partial	No
Palm Springs	3 Yrs.	3/23	Community Growth	No	-	-	Hospital	No	Private	22.5 K	Partial	Yes
Ventura	(13)	-	-	-	-	-	-	-	-	-	-	-
El Monte	1 Yr.	3/23	Yes (17)	No (18)	-	Private	Patient	No	Private	70 K	Yes	No

NOTES TO PARAMEDIC PROGRAMS IN OTHER CITIES

1. Work a 3-platoon system, two men per unit; extra man assigned to backup truck or engine company.
2. Second unit to be added later this year.
3. Experienced 200 percent increase in demand over 3-year period.
4. Personnel loss through promotion.
5. Hospital replaces supplies in paramedic units and bills patient for supplies/drugs used.
6. The city has always been the ambulance service and they have just upgraded existing level of service.
7. City buys from hospital then bills patient.
8. Experienced 1,100 combined runs per month; will put fifth unit in service this year.
9. Calls for service up 50 percent.
10. Will add additional unit this year.
11. Use nonsafety personnel. City has own M.D. who heads health department and practices occupational medicine. Paramedics work under health department, but are controlled by the fire department.
12. Receive pay of Fire Engineer.
13. Study just completed which recommends that the county not initiate a paramedic program at the present time.

14. Third unit into service in May, 1975.
15. Five percent of fifth step Firefighter.
16. Three units are operated by the city and one by a private company. The city has called upon the private company to support them when city units are unavailable.
17. Add fourth unit in May, 1975.
18. Employees under contract.

Appendix I

EMT-I COURSE CONTENT

EMERGENCY MEDICAL TECHNICIAN I - Emergency Care of the Sick and Injured

Catalog Description: Emergency Medical Technician I - Emergency Care of the Sick & Injured. (4 units) Ninety hours of classroom lecture-demonstration including occasional in-hospital observation. Acquaints the student with the correct techniques of emergency medical care needed by different types of patients. Stress is placed on the recognition and treatment of emergency problems.

Prerequisites: Advanced First Aid Certificate or instructor's permission.

Description for Counselor's Handbook: This is an indepth course in emergency techniques for public service officers, ambulance attendants, nurses, and other emergency care personnel. Emphasis is placed on learning how to identify and respond to emergency-crisis situations. It is an advance course and it presumes some previously developed skills in basis techniques.

Textbooks: Emergency Care & Transportation of the Sick & Injured
American Academy of Orthopaedic Surgeons

Emergency & Disaster Nursing - Mahoney, 1969 Macmillan Co.

Course Objectives:

1. To teach the student the overall role and responsibilities of the emergency medical technician.
2. To give the student the skills to provide safe patient care in emergencies.
3. To develop student skills in diagnosis and all emergency treatment procedures within the limitations of his skills and authority.
4. To develop student skills in the use and care of all equipment needed to provide emergency medical care.
5. To assist the student in setting priorities for emergency care.
6. To assist the student in recognizing and understanding the uses of emergency medications.

Means of Achieving Course Objectives:

1. Formal classroom lectures & demonstrations.
2. Physician lectures.
3. Films & filmstrips.
4. Clinical observations in ER on a rotating basis (16 hours).

System of Measurement & Evaluation:

1. Periodic quizzes. Major examination at midterm and at end of the course.
2. Practical examinations on emergency techniques.
3. There will be a 2-hour written final examination and a 4-hour practical at the end of the course.

COURSE OUTLINE

- I. Introduction to Emergency Care and the Role of the Emergency Technician. (4 hours)
 - A. Philosophy of emergency care.
 - B. Role and Responsibilities of the Emergency Medical Technician.
 - C. Basic Principles of Emergency Care.
 1. Initial First Aid (review)
 2. Urgency evaluation.
 3. Light extrication -- lifting and transporting patients.
 4. Information gathering and record keeping.
 5. Vehicle and equipment care.
 6. The "crash" cart -- organization of emergency equipment and medications.
 7. The legal aspects of Emergency Care.
- II. Emergency Medical Procedures
 - A. Respiratory Emergencies: (6 hours = 2 hrs. lecture + 4 hrs. lab.)
 1. Basic review of anatomy and physiology of the respiratory system.
 2. Signs and symptoms of airway obstruction and pulmonary arrest.
 3. Causes of respiratory emergencies.
 4. Emergency treatment in respiratory emergencies:
 - a. Manual techniques of airway care.
 - b. Methods of pulmonary resuscitation.(manual techniques)
 - c. Resuscitation of laryngectomy and tracheostomy patients.
 - d. Use of mechanical aids to breathing and pulmonary resuscitation.
 - e. Use of suction units and oxygen equipment.
 - B. Cardiac Emergencies: (6 hours = 2 hrs lecture + 4 hrs lab)
 1. Basic review of anatomy and physiology of the cardiovascular system.
 2. Techniques for determining vital signs (TPR & B/P).
 3. Signs and symptoms of cardiac arrest.
 4. Techniques of Cardiopulmonary Resuscitation
 - a. Lone rescuer technique
 - b. Two-man technique
 5. Signs of Congestive Heart Failure
 6. Emergency treatment of CHF.
 - C. Vascular Emergencies: (4 hours = 1½ hrs lecture + 2½ hrs lab)
 1. Hemorrhage
 - a. Signs of external hemorrhage
 - b. Emergency treatment of external hemorrhage
 - (1) Pressure dressings
 - (2) Pressure points
 - (3) Inflatable splints
 - (4) Tourniquets
 - c. Signs of internal hemorrhage
 - (1) Cerebral bleeding (Stroke covered)
 - (2) Abdominal bleeding
 2. Shock
 - a. Signs and symptoms of shock
 - b. Emergency treatment of shock
 - D. Wounds: (4 hours = 1½ hrs lecture + 2½ hrs lab)
 1. Types and causes of various wounds
 2. Dangers of wound infection
 3. Basic treatment of wounds
 4. Techniques of dressing and bandaging wounds.
 - a. Extremities
 - b. Head and neck
 - c. Shoulder and hip

K. Emergency Childbirth: (8 hours = 3 hrs lecture + 5 hours lab)

1. Basic review of the female anatomy involved in childbirth.
2. Obstetrical terminology.
3. Equipment & supplies used during emergency childbirth.
4. Method of delivery.
5. Care of the baby.
 - a. Clamping & cutting the umbilical cord.
 - b. Resuscitation techniques on newborns.
6. Care of the mother.
 - a. Delivery of the placenta.
 - b. Complication of pregnancy & delivery.

L. Environmental Emergencies: (4 hours = 2 hrs lecture + 2 hours lab)

1. Burns.
 - a. Types & causes of burns. (Radiation Burns)
 - b. Estimation of the severity of burn.
 - c. Treatment techniques for the burned patient.
 - d. Complications. (Radiation Burns)
2. Problems due to excessive heat or cold.
 - a. Signs, symptoms & treatment of:
 - (1) Heat cramps, heat exhaustion, & heat stroke.
 - (2) Frostbite.
3. Drowning accidents.
 - a. Rescue techniques.
 - b. Treatment & resuscitation techniques.
4. Electrical injuries.
 - a. Rescue techniques.
 - b. Techniques of care.
5. Major dangers of explosions.
6. Radiation Exposure

III. Emergency Rescue & Transportation: (8 hours = 4 hrs lecture + 4 hrs lab)

A. Lifting & Moving Patients:

1. Principles of moving & positioning patients for transportation.
2. Techniques of moving patients from a bed or floor to a stretcher.
3. Special techniques for moving patients with suspected back injury.
4. Loading & unloading stretchers on ambulance.

B. Extrication from Automobiles:

1. Basic understanding of principles & considerations involved in removing patients from automobiles.
 - a. Patients with suspected spinal injuries.
 - b. Patients with chest injuries.
 - c. Patients with a traumatic amputation.

C. Operation & Maintenance of Emergency Vehicle:

1. Laws relating to operating an emergency vehicle.
2. Daily inspection & care of vehicle & equipment.
3. Communications.
4. Procedures at hospital emergency rooms.

D. Responding to Emergency Calls:

1. Analyzing the situation at the scene of the accident
2. Procedure for examining patients.
3. Triage procedures.
4. Loading & transportation.

- E. Musculo-Skeletal Injuries: (6 hours = 2 hrs lecture + 4 hrs lab)
1. Basic review of anatomy and physiology
 2. Types and causes of fractures and dislocations.
 3. Types of splints and techniques of splinting.
 4. Signs and symptoms of fractures, dislocations and sprains.
 - a. Upper extremities
 - b. Lower extremities
- F. Injuries of the Head, Face, Neck, and Spine: (4 hours = 1½ hrs lecture + 2½ hrs lab)
1. Basic review of anatomy and physiology of the nervous system.
 2. Head injuries
 - a. Signs and symptoms of a fractured skull.
 - b. Treatment techniques in the care of skull and brain injuries.
 - c. Review of bandaging techniques.
 3. Facial Injuries
 - a. Lacerations.
 - b. Fractured jaw.
 - c. Treatment of facial injuries.
 - d. Bandaging techniques.
 4. Spinal Injuries
 - a. Signs and symptoms of a fractured spine.
 - b. General rules for handling spinal injuries.
 - c. Techniques of immobilizing fractured necks and backs.
 5. Eye Injuries
 - a. Care of eye injuries with and without a protruding object.
 - b. Bandaging techniques.
- G. Injuries to the Chest: (3 hours = 1 hr lecture + 2 hrs lab)
1. Basic review of anatomy and physiology.
 2. Types of chest injuries.
 3. Emergency treatment of chest injuries.
 - a. Sucking chest wound with a rib fracture.
 - b. Sucking chest wound without a rib fracture.
 - c. Bandaging techniques.
- H. Injuries to the Abdomen, Pelvis, and Genitalia: (2 hours lecture-lab)
1. Basic review of anatomy and physiology of the digestive system and the genito-urinary system.
 2. Types of injuries.
 3. General treatment.
- I. Medical Emergencies (group I): (4 hours = 1½ hours lecture + 2½ hrs lab)
1. Basic understanding of the causes, signs, symptoms, and treatment techniques of:
 - a. Poisonings; Drug Overdoses. (Alcohol overdose)
 - b. Animal bites and insect stings.
 - c. Heart attacks.
 - d. Asthmatic attacks.
 - e. Acute abdominal problems.
- J. Medical Emergencies (group II): (4 hours = 1½ hrs lecture + 2½ hrs lab)
1. Basic understanding of the causes, signs, symptoms, and treatment techniques of:
 - a. Diabetic coma and Insulin shock.
 - b. Patients with communicable diseases.
 - c. Emotional disturbed and unruly patients.
 - d. Epileptics.
 - e. Unconscious patients.

Appendix J

CORRESPONDENCE

FIRE DEPARTMENT
AROLD K. BORDNER
RE CHIEF
BUREAU OF FIRE PREVENTION
ALTER R. CRUMP
RE MARSHAL

BUREAU OF FIRE PREVENTION
445 NO. REXFORD DRIVE
BEVERLY HILLS, CALIFORNIA
CRESTVIEW 6-6181 BRADSHAW 2-2116



CITY OF BEVERLY HILLS
CALIFORNIA, 90210

January 3, 1975

Mr. Jim Buell
Assistant City Manager
City of Bakersfield
1501 Truxtun Avenue
Bakersfield, California 93301

Dear Mr. Buell:

Thank you for your interest in the Beverly Hills Fire Department paramedic program. Pursuant to your conversation this date with Battalion Chief Bauer, the following information is provided for your perusal:

Capital Outlay Costs

a. Ambulance (1974 Cadillac)	\$28,000
b. Difibrillator, scope and implements contained in the ambulance	7,000
c. Radio and telemetering equipment (complete system)	<u>29,000</u>
	\$64,000 (prices as of March, 1974)

Fee Schedule

a. Transported to base hospital (UCLA)	\$40.00
b. Assistance (not transported)	\$30.00
c. Oxygen administered	\$ 7.50

Page 2
Mr. Jim Buell
January 3, 1975

Operating costs for fiscal year 1972-73 - \$111,329 (not including personnel costs).

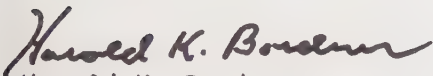
Number of calls fiscal year 1972-73 - 1,392.

Average length of call (time of call until back in service) - one hour. 1,021 patients were transported.

It should also be pointed out that since Beverly Hills was already operating a rescue ambulance, there were no additional manpower requirements.

Since innumerable reports have been made on this subject, it is not possible to detail more specific information without knowing your exact area of concern. If I can be of further help, however, please do not hesitate to contact me.

Very truly yours,


Harold K. Bordner
Fire Chief

HKB:ls

COUNTY OF KERN
EMERGENCY MEDICAL CARE COMMITTEE

Administration and Courts Building
15 Truxtun Avenue
Bakersfield, California 93301



FILED
TELEPHONES—AREA CODE 805

January 7, 1975

'75 JAN 10 AM 10:29

Bakersfield City Council
Bakersfield City Hall
1501 Truxtun Avenue
Bakersfield, California

CITY CLERK

Dear Sirs:

I have been asked to give you information regarding the Paramedic Program currently being conducted jointly by Bakersfield College and San Joaquin Community Hospital. The question came up, as I understand it, about the stand of the Kern County Medical Society on the Paramedic Program. I might state, to start with, that I am chairman of the Kern County Medical Society's Emergency Committee and also this year, chairman of Kern County Medical Emergency Care Committee. Holding the dual role, I have kept the Board of Directors of the Medical Society advised and have given reports to them as to the progress although, to my knowledge, they have taken no action in expressing an active support for this. However, they have given tact approval of it. The Kern County Emergency Medical Care Committee has given approval-- it is felt that this would probably save people's lives when these men are trained and performing in accordance with California law.

I personally attended many meetings set up by the Public Health Department of the State of California during 1974 to consider a new law to establish a uniform system for caring for emergencies in the State of California. It appears that the Boards of Supervisors of each county will be mandated to implement this. Certain basic levels of training will probably be set forth in regard to the Paramedic Program. With this additional training for Paramedics, they will be enabled to do things at site of an accident or in first picking up a heart attack patient including starting of intravenous, giving certain medications as long as they are in voice contact with a medical emergency physician or registered emergency room nurse. San Joaquin Community Hospital, without grants, as I understand, obtained the equipment and also a license to operate a station that will enable vehicles properly equipped to have this voice communication and telemetry capabilities.

The first class of Paramedics fulfilling the suggested hours of training will have completed this shortly after the first of the year and a second class will be entering.

I personally feel that this is the first step in giving the citizens of the Greater Bakersfield area better emergency medical care and, with this step, eventually the entire County of Kern will be covered. Mr. David J. Sumbardo, Deputy City Manager, has attended one meeting and I would like to invite any of you who have the time to come to the next meeting of the Kern County Emergency Medical Care Committee, which will be held January 15, 1975 in the dining room of San Joaquin Community Hospital at 7:30 p.m.

Sincerely,

A handwritten signature in dark ink, appearing to read "James F. Barnard", is written over a horizontal line.

James F. Barnard, M. D.
Chairman County of Kern Emergency Medical Care Committee
Chairman Kern County Medical Society

JFB/lw

MARION C. BARNARD, M.D.
JAMES F. BARNARD, M.D.
WAYNE A. FENDERSON, M.D.
MARION C. BARNARD, II, M.D.
JO ELLEN BARNARD, M.D.

RADIOLOGY
JOHN W. KIZZLAR, M.D.
DIRECTORS OF LABORATORY
M. F. SHERRILL, M.D.
W. R. SCHMALHORST, M.D.

NILES SURGICAL & MEDICAL GROUP

PHONE 325-1255

2121 NILES STREET, BAKERSFIELD, CALIFORNIA 93305

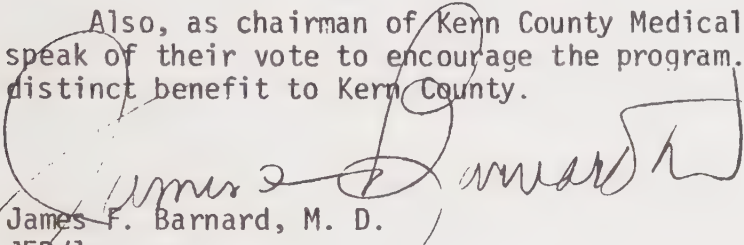
January 27, 1975

TO WHOM IT MAY CONCERN:

As chairman of the Emergency Committee, the Kern County Medical Society has asked me to speak for them in matters pertaining to the Paramedic Program. They have been informed of the progress of the program and all that I have spoken with have made favorable remarks.

It is the feeling that this program for Metropolitan Bakersfield can lay the groundwork for a county-wide program that will offer improved care and save lives not only of heart attack victims but also of seriously injured accident victims.

Also, as chairman of Kern County Medical Emergency Care Committee, I can speak of their vote to encourage the program. They felt that it would be a distinct benefit to Kern County.



James F. Barnard, M. D.
JFB/lw

**San Joaquin Community Hospital
Corporation**

2615 Eye Street P.O. Box 2327
Phone 327-1711

Bakersfield, California / 93301

January 27, 1975

Bakersfield City Council
City Hall
Bakersfield, California

Gentlemen:

It has been the privilege of the San Joaquin Community Hospital to offer training to the citizens of our area in association with Bakersfield College. The program has been directed toward qualifying interested parties as Paramedics.

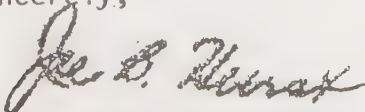
A group of citizens from our community have recently graduated from the first training program. This group included nine members of the Bakersfield City Fire Department. The Paramedic Training Program has been designed to better serve the needs of our community in times of medical crises. There has not been any cost incurred by the individuals participating in the training program other than text books. It is our plan to continue the program at no cost to future participants.

When a qualified Paramedic person is working in the field he does so at the direction of a licensed physician through direct radio communication. The primary responsibility for patient care is thus assumed by the physician and therefore, the Paramedic is not personally involved with liability concerns since he does not act as an independent agent and restricts his treatment to those medical orders given by a licensed physician.

The initiative and the interest shown by the Fire Department personnel is most gratifying and as the program has developed we have realized the necessity of certain pieces of equipment being made available and used by the Fire Department personnel. In response to this need we have accepted the responsibility of providing, on a voluntary basis, the necessary equipment required to implement participation by the trained Fire Department personnel when responding in a "Paramedic" situation.

We are pleased that we have had a part in providing this community service and we wish to express our appreciation for being given the opportunity to serve in this capacity.

Sincerely,



Joe B. Hurst
Administrator

JBH:rb✓



MERCY HOSPITAL

P. O. Box 119, 93302

2215 TRUXTUN AVENUE

BAKERSFIELD, CALIFORNIA 93301

AREA CODE 805 327-3371

RECEIVED

FEB 19 1975

Donald M. Hart, Mayor

Approved.

Joint Commission on
Accreditation of Hospitals

Member:

American Hospital Association
Association of Western Hospitals
California Hospital Association
Catholic Hospital Association
Hospital Council of Central California

Mr. Don Hart
Mayor
City of Bakersfield

14 Feb 75

Dear Don:

I am writing this letter to support the paramedic program which the fire department wishes to engage in here in Bakersfield. As director of the emergency department here at Mercy Hospital I am acutely aware of the need for trained paramedics in the local ambulances. I have been associated with emergency departments in San Francisco, Los Angeles, and San Diego. In these areas trained paramedics operate as members of the police or fire departments. They are the primary factor in the recent lowering of the death rate from cardiac disease that we have seen in this country over the past several years.

I understand that the controversy is not whether or not to have paramedics, but whether they should be city firemen or members of a private ambulance service. It is my feeling that the fire paramedics I have met here in Bakersfield are well trained, dedicated and intelligent men who would be a real asset to the city as paramedics. I think the experience in Los Angeles has demonstrated that a government run paramedic service fills a real need and that such a service can work very effectively with private enterprise. I think the paramedic program with Hall's ambulance is excellent and very much needed but I also think that more paramedics are needed in Bakersfield and that the fire department is well equipped and ready to supply this need.

Sincerely,

George W. Trager, MD
Director, Emergency Dept

PS The house in Frazier Park is great and I have been extremely happy there.
George



THE MENDED HEARTS, INC.

Kern County Chapter No. 77

75 FEB 28 AM 10:53

RECEIVED

CITY CLERK

The City Council
City of Bakersfield, California
1501 Truxton Avenue
Bakersfield, California 93301

Gentlemen:

Kern County Chapter No. 77 of The Mended Hearts, Inc.
at its meeting of February 18, 1975, unanimously adopted the
following resolution:

"Be it here by resolved that the Chairman
of this Chapter be instructed to inform the City
Council of the City of Bakersfield that the
membership firmly believes that the paramedical
program for City Firemen should be adopted by
the Council".

For those of you who may not be acquainted with our
organization, our membership is primarily made up of former heart
patients and their families, who having recovered from heart
surgery are now trying to help others. One of the many ways is
through presenting educational programs and helping in civic
projects related to the prevention and cure of heart disease.

It is our belief that the paramedical program for City
Fireman can be a factor in saving many lives here in Bakersfield.
Also we do not believe the establishment of this program would in
anyway interfere with any programs that might be developed by the
various ambulance services, but could be used to augment the available
personnel in time of need.

Hoping this letter and resolution will help you towards
adopting this vital program, I remain.

Sincerely yours,

William H. Siefert
William H. Siefert, Chairman
Kern County Chapter No. 77
The Mended Hearts, Inc.

"IT'S GREAT TO BE ALIVE

AND TO HELP OTHERS."

CITY of BAKERSFIELD
CALIFORNIA

FIRE DEPARTMENT
C. C. HAGGARD
FIRE CHIEF



2101 H STREET
BAKERSFIELD, 93301
324-9428

MEMORANDUM

13 March 1975

TO Dave Sumbardo, Deputy City Manager

FROM C. C. Haggard, Fire Chief

SUBJECT Estimated Cost for Paramedic Program

In reply to your request for the estimated cost of this department furnishing Paramedic service to the people of Bakersfield, the following information is respectfully submitted.

At the present time, this department operates one rescue unit out of Fire Station No. 1 located at 21st and "H" Streets. This unit is equipped with all the necessary gear to provide first class rescue and emergency medical treatment. We also have 9 members of this department who have all the emergency medical training towards Paramedic certification except the 200 hours required for field internship that must be done on duty under the supervision of a Mobil Intensive Care Nurse. This additional training and the Paramedic medical equipment would be all that is needed to furnish one Paramedic unit by this department for the City.

In order to provide a second rescue and Paramedic unit by this department the following cost estimates are furnished.

1. Vehicle complete, emergency lights, siren and F.D. Radio	\$ 8,500.00
2. Coronary Observation Radio	5,000.00
3. Defibrillator (Oscilloscope)	3,000.00
4. Defibrillator Paddles	250.00
5. Spine Boards and Scoop Stretcher	260.00
6. Stethoscopes and Sphygmomameter	165.00
7. Oxygen Tanks and Regulators	290.00
8. Resuscitators and Inhalators	235.00
9. Rescue Blankets	240.00
10. Portable Suction	185.00
11. Splints	100.00
12. Miscellaneous Tool Boxes	225.00
13. Basket Stretcher Complete	140.00
14. Flashlight and Scissor Kits	45.00
15. Miscellaneous Medical Supplies	400.00

Complete rescue equipment as on Rescut Unit No. 1,
including Hurst Power Tool and attachments

\$ 9,950.00

In the area of training there will be 2 more men
in June of 1975 ready for the 200 hours of field
training for a total of 11 members who will not
require any more off-duty training. With those 11
members, we feel 5 additional Paramedics would be
needed to operate a second Paramedic Unit which
would require approximately 200 hours of off-duty
training and approximately 320 hours of on-duty
training including the 200 hours of field internship.
This cost at 1½ time rate of \$6.318 per hour is
estimated 5 members x 200 hrs x \$6.318 hr. rate =

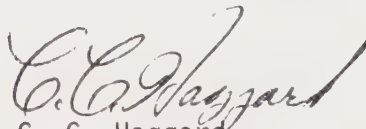
6,318.00

To activate a second Paramedic Unit for this
department I would recommend 3 additional employees
over and above our present needs. Per year three
firefighters salaries, approx.

31,200.00

First year estimated total cost second unit -

\$66,503.00


C. C. Haggard
Fire Chief

CCH:ct

RECEIVED

75 MAR 24 AM 11:37

3700 Century Drive
Bakersfield, California 93306.
March 19, 1975

CITY CLERK
The Honorable Mayor and City Council
City of Bakersfield
Bakersfield, California

Gentlemen:

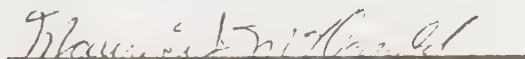
There isn't any question as to the need of a Paramedic Plan in the City of Bakersfield and our Fire Department is the best qualified for this emergency service.

Gentlemen, who would you call in case of an emergency? The Police Department, Doctor, Ambulance or the Fire Department. I'm sure the answer would be the Fire Department.

The only emergency service immediatly available in case of Heart Attack, Drowning, Suffocation, Cuts, Broken Bones, Industrial Accident, Trapped in a vehicle as a result of a traffic accident is the Fire Department.

The Fire Department has become proficient in saving lives through training and needs this type of equipment in their work. They are a dedicated Public servant and the City Council should not hesitate in purchase of the necessary equipment to put our Fire Department into a Paramedic Program.

Sincerely,


Maurice J. McDonald.

cc: Bakersfield Californian.

RECEIVED

April 8, 1975

'75 APR 11 AM 9:04

CITY CLERK

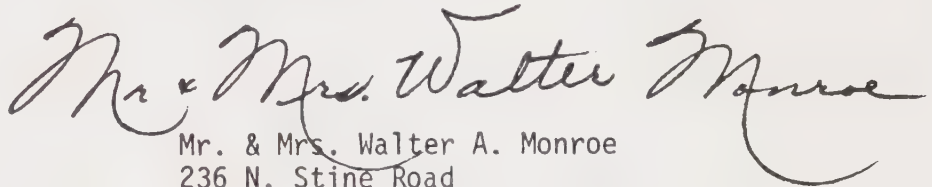
Members of the Bakersfield City Council
1501 Truxtun Avenue
Bakersfield, California 93301

Gentlemen:

We would like to go on record supporting Mrs. Van Alstyne's presentation last evening regarding the paramedic plan. We, too, oppose a public paramedic program administered by government through the city fire department.

Thank you.

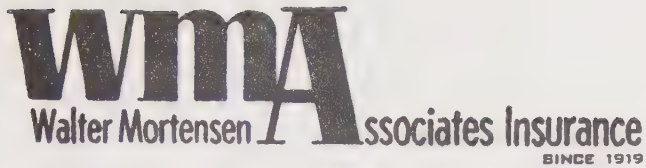
Yours truly,

A handwritten signature in cursive script that reads "Mr. & Mrs. Walter A. Monroe". The signature is written in dark ink and is positioned above the typed name and address.

Mr. & Mrs. Walter A. Monroe
236 N. Stine Road
Bakersfield, California 93309

Appendix K

LETTER FROM CITY'S INSURANCE CARRIER



May 12, 1975

Mr. H. E. Bergen
City Manager
City of Bakersfield
1501 Truxtun Avenue
Bakersfield, California 93301

RE: Paramedics Program

Dear Mr. Bergen:

On the date of April 8, 1975, I wrote to you in reference to the Paramedic Program as premiums and coverages applied to the Providence Washington Insurance Company Policy, now in effect in the City of Bakersfield. As you know, Providence Washington is cancelling the City's Insurance and therefore, the insurance must be placed elsewhere. Therefore, the situation has changed to some degree.

We could obtain malpractice coverage for a \$1,000,000 limit of liability at a premium of approximately \$1,000 for each paramedic at this time. However, because of the high risk area involved, a liability limit of \$5,000,000, which would triple the cost, would be more desirable. The City, in this program, is entering a high risk area, in that malpractice coverage is a necessity.

We would strongly recommend that the City's liability as respects Paramedics be discussed at length with your City Attorney. We do feel that in the event of an incident caused by a Paramedic that the City would be named as a Defendant in any of these cases, and could conceivably be held if there were any negligence whatever.



Page 2
Mr. H. E. Bergen
City Manager
City of Bakersfield
May 12, 1975

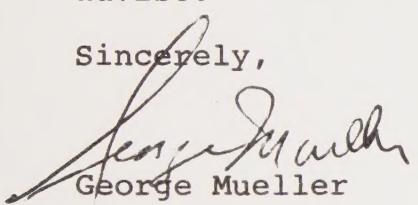
As previously indicated, the cost of defense in Malpractice Claims is the most expensive in the industry. The chances of success in the suit of a Malpractice Claim, percentage wise, is much higher than in most other areas, and judgments are much higher.

I am simply trying to convey the fact that we can provide coverage for this program, however, I feel that I must point out that the cost could conceivably become a very expensive item, as in the case of all Malpractice Coverages.

The news media has indicated in many cases, where insurance premiums overnight have increased as much as 400%. Physicians, Statewide and locally, are having difficulties with their Malpractice costs. This is an area that is so unstable, it is impossible to make any judgement whatever as to where premiums will be even a month from now. This of course, should be taken into consideration in your deliberations.

Should you need any other information, would you please advise.

Sincerely,



George Mueller

GM:lk

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U.C. BERKELEY LIBRARIES



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